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A LIST OF THE APHIDIDAE OF JAPAN, WITH DESCRIPTION OF NEW SPECIES AND GENERA

BY

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Owing to the difficulty of preserving and making the preparation of a specimen, and still more to the polyphagous and polymorphic characters of the Aphides, the Japanese Aphides have not been studied thoroughly by any entomologist. In 1900 Prof. CHUJIRO SASAKI¹⁾ published in the Japanese language the result of his studies on some of our Aphides, among which was one new species. In the same year I²⁾ also wrote a paper on some Japanese Aphides in our own language. In 1908 Prof. GINJI OKAJIMA wrote about two new and one known species of *Trichosiphum* under the title of "Contributions to the Study of Japanese Aphididae" in the Bulletin of the Agricultural College of Tokyo, Vol. VIII, p. 1-8.

According to our present knowledge, the Aphides injurious to cultivated plants are mostly cosmopolitan, being very easily introduced into new countries with their host plants. The present study is restricted mainly to the Aphides which attack our indigenous plants.

The present list contains 81 species and 29 genera, among which 57 species and 15 genera are new to science and I shall describe them on this occasion.

In describing the species and genera I have used the following two new terms for convenience :

Anterhinalia—The distal part of the apical joint of the antennae, which

1) Nippon Nosakubutsu-Gaichu-Hen p. 428.
2) Dainippon-Gaichu-Zensho.

was formerly considered as a separate, independent joint.

Postrhinarial—The proximal part of the apical joint which was formerly considered as the penultimate joint.

The sensory organs of the antennae were not considered so important before, but at present they are the most important parts employed for classification, so I want here to explain some terms:

Rhinarium—Mostly one large, round or oval sensorium in the ultimate antennal joint, lying between the ante- and postrhinarial; it is called also sensorium by some authors.

Sensoria—Meaning the sensory pits or rings of the antennal joints (except the ultimate), which are also called the secondary rhinaria by some authors.

By the term “winged viviparous female” in this paper is meant either the fundatrigeniae, virgogeniae or sexuparae, and the morphological distinctions between these individuals are not yet well characterized, and these gaps may be filled in the near future.

In the classification of the Japanese Aphides I have had much help from Börner's paper, and the present list is arranged after his method.

On this occasion I should like to express my cordial thanks to Mr. JIRO ADACHI in Tamba and Mr. SHIGERI ARAKAWA in Iyo, who have collected for me many valuable specimens for this study. I am also greatly indebted to Dr. TOKUICHI SHIRAKI who has helped me by sending some literatures and specimens for identification. My assistant, Mr. TOKU OKUNI, has drawn for this paper the accurate figures of the insects, for which I want to express my sincere gratitudes.

A List of the Japanese Aphididae.

1. Sub.fam. Callipterinae.
 - Tribe Callipterini.
 - Group Callipteri.
 - Gen. 1. **Nippocallis** Mats. (n. g.)
 1. **Nippocallis kuricola** Mats. (n. sp.)

Hab.—Shikoku (Iyo) collected by Mr. SHIGERU ARAKAWA.

F. P.—*Castanea crenata*.

Nom. Jap.—*Kuri-madara-abura*.
 - Gen. 2. **Yamatocallis** Mats. (n. g.)
 2. **Yamatocallis hirayamae** Mats. (n. sp.)

Hab.—Hokkaido (Sapporo), Honshu (Tokyo), Kyushu (Satsuma).

F. P.—*Abies sachalinensis* in Sapporo and unknown plants in Tokyo and Satsuma.

Nom. Jap.—*Hirayama-abura*.
 - Gen. 3. **Acanthocallis** Mats. (n. g.)
 3. **Acanthocallis quercicola** Mats. (n. sp.)

Hab.—Hokkaido (Sapporo).

F. P.—*Quercus grosserrata*.

Nom. Jap.—*Nara-toge-abura*.
 - Gen. 4. **Yezocallis** Mats. (n. g.)
 4. **Yezocallis alniaria** Mats. (n. sp.)

Hab.—Hokkaido (Sapporo).

F. P.—*Alnus japonica*.

Nom. Jap.—*Hanno-buchi-abura*.
 5. **Yezocallis kabae** Mats. (n. sp.)

Hab.—Hokkaido (Sapporo).

F. P.—*Betula japonica*.

Nom. Jap.—*Kaba-buchi-abura*.
 - Gen. 5. **Myzocallis** Pass. (1860)
 6. ? **Myzocallis castanæae** Buck.

Myzocallis castanæae Buck. Mong. Vol. III, p. 26. t. XCI, f. 5-9 (1830).

Hab.—Honshu; Europe.

F. P.—*Castanea crenata*.

Nom. Jap.—*Kuri-buchi-abura*.
 7. **Myzocallis kashiwæ** Mats. (n. sp.)

Hab.—Hokkaido (Sapporo).

F. P.—*Quercus dentata*.

Nom. Jap.—*Kashirwa-buchi-abura*.
 8. **Myzocallis sasæ** Mats. (n. sp.)

Hab.—Hokkaido (Sapporo).
 F. P.—*Sasa paniculata*.
 Nom. Jap.—*Sasa-buchi-abura*.

9. **Myzocallis sawashibae** Mats. (n. sp.)
 Hab.—Hokkaido (Sapporo).
 F. P.—*Carpinus cordata*.
 Nom. Jap.—*Sawashiba-buchi-abura*.

Gen. 6. **Takecallis** Mats. (n. g.)

10. **Takecallis bambusae** Mats. (n. sp.)
 Hab.—Hokkaido (Sapporo).
 F. P.—*Sasa paniculata*.
 Nom. Jap.—*Take-higenaga-buchi-abura*.
 Group Chaitophori.
 Gen. 7. **Chaitophorus** Buck. (1877).
Phyllophorus Thom.; *Phyllophora* Fern.; *Chelymorpha* Clark.

11. **Chaitophorus aceris** L.
Aphis aceris L. Faun. Suec. p. 262 (1761).
Aphis acerifex Amy. Ann. Soc. Ent. Fr. (2). p. 479 (1847).
Chaitophorus aceris Buck. Monog. B. Aph. Vol. II, p. 121, t. 78 (1877).
 Hab.—Hokkaido, Honshu; Europe.
 F. P.—*Acer palmatum*, *A. miyabesi*, *A. japonicum*.
 Nom. Jap.—*Itaya-keabura*.

12. **Chaitophorus populi** L.
Aphis populi L. Faun. Suec. p. 261 (1761).
Aphis populifolia Fitch. ? Cat. Hom. N. Y. St. Cab. p. 66 (1851).
 Hab.—Japan; Europe, America (?).
 F. P.—*Populus balsamifera*.
 Nom. Jap.—*Doro-keabura*.

13. **Chaitophorus salicicolus** Mats. (n. sp.)
 Hab.—Hokkaido (Sapporo).
 F. P.—*Salix caprea*, *Populus balsamifera*.
 Nom. Jap.—*Yanagi-keabura*.
 Gen. 8. **Arakawana** Mats. (n. g.)

14. **Arakawana stigmata** Mats. (n. sp.)
 Hab.—Shikoku (Iyo); collected by Mr. SHIGERI ARAKAWA.
 F. P.—*Quercus grandifolia*.
 Nom. Jap.—*Arakawa-abura*.

Gen. 9. **Hannabura** Mats. (n. g.)

15. **Hannabura alnicola** Mats. (n. sp.)
 Hab.—Hokkaido (Sapporo).

F. P.—*Alnus incana*.

Nom. Jap.—*Hanno-higenaga-ōabura*.

2. Subfam. Lachninae.

Group. Lachni.

Gen. 10. *Lachnus* Burm. (1835)

16. **Lachnus lariciculus** Mats. (n. sp.)

Hab.—Hokkaido (Sapporo), Honshu (Iwate, Nikko).

F. P.—*Larix leptolepis*.

Nom. Jap.—*Karamatsu-ōabura*.

17. **Lachnus longipennis** Mats. (n. sp.)

Hab.—Hokkaido (Sapporo).

F. P.—*Abies sachalinensis*.

Nom. Jap.—*Hanenaga-ōabura*.

18. **Lachnus viminalis** Fonsc.

Aphis viminalis Fonsc. Ann. Soc. Ent. Fr. (X), p. 188 (1841).

Aphis saligna Wk. List. Britt. Hom. Vol. III, p. 959 (1851).

Lachnus viminalis Pass. Buck. Brit. Aph. Vol. III, p. 53 (1880).

Hab.—Hokkaido, Honshu; Europe, America.

F. P.—*Salix babylonica*.

Nom. Jap.—*Yanagi-ōabura*.

Gen. 11. **Todolachnus** Mats. (n. g.)

19. **Todolachnus abietis** Mats. (n. sp.)

Hab.—Hokkaido (Sapporo).

F. P.—*Abies sachalinensis*.

Nom. Jap.—*Todo-midori-ōabura*.

Gen. 12. **Nippolachnus** Mats. (n. g.)

20. **Nippolachnus piri** (n. sp.)

Hab.—Honshu (Tamba); collected by Mr. J. ADACHI.

F. P.—*Pirus sinensis*.

Nom. Jap.—*Nashi-midori-ōabura*.

21. **Nippolachnus abietinus** Mats. (n. sp.)

Hab.—Hokkaido (Sapporo).

F. P.—*Abies sachalinensis*.

Nom. Jap.—*Todo-chairo-ōabura*.

Gen. 13. **Pterochlorus** Rond. (1847)

Dryobius Koch; *Dryaphis* Kirk.

21. **Pterochlorus japonicus** Mats. (n. sp.)

Hab.—Hokkaido, Honshu, Kiushu.

F. P.—*Castanea crenata*, *Quercus grosserrata*.

Nom. Jap.—*Kuri-abura*.

23. **Pterochlorus ogasawarae** Mats. (n. sp.)

Hab.—Honshu (Iwate).

F. P.—*Quercus* sp. ? ; collected by Mr. TEIZO OGASAWARA.

Nom. Jap.—*Ogasawara-abura*.

3. Subfam. Aphidinae

1. Tribe Aphidini.

Gen. 14. **Aphis** L. (1758)

24. **Aphis acanthopanaci** Mats. (n. sp.)

Hab.—Hokkaido (Sapporo).

F. P.—*Acanthopanax ricinifolium*.

Nom. Jap.—*Senno-abura*.

25. **Aphis astilbes** Mats. (n. sp.)

Hab.—Hokkaido (Sapporo).

F. P.—*Astilbe chinensis*.

Nom. Jap.—*Natsuyuki-abura*.

26. **Aphis celastrii** Mats. (n. sp.)

Hab.—Hokkaido (Sapporo).

F. P.—*Celastrus articulatus*.

Nom. Jap.—*Unemodoki-abura*.

27. **Aphis brassicae** L.

Aphis brassicae L. Faun. Suec. p. 260 (1761).

Aphis rhaphani Schr. Faun. Boic. II, p. 119, 1229 (1801).

Hab.—Japan; Europe, N. America.

F. P.—*Brassica*, *Rhaphaniis*, *Sinapis*, *Capsella*.

Nom. Jap.—*Daikon-abura*.

28. **Aphis cardui** L.

Aphis cardui L. Faun. Suec. p. 260 (1761).

Aphis chrysanthemi Koch, Aphid. p. 73, t. 8, f. 96, 97 (1857).

Hab.—Japan; Europe, N. America.

F. P.—*Chrysanthemum*, *Eupatorium*, *Carduus*, *Cosmos*, *Solidago*.

Nom. Jap.—*Kiku-abura*.

29. **Aphis colocasiae** Mats. (n. sp.)

Hab.—Honshu.

F. P.—*Colocasia antiquorum*.

Nom. Jap.—*Imo-abura*.

30. **Aphis clerodendri** Mats. (n. sp.)

Hab.—Hokkaido, Honshu.

F. P.—*Clerodendron tricotomum*.

Nom. Jap.—*Kusagi-abura*.

31. **Aphis glycines** Mats. (n. sp.)

Hab.—Hokkaido (Sapporo).

F. P.—*Glycine hispida*.

Nom. Jap.—*Daizu-abura*.

32. **Aphis gossypii** Glov.

Aphis gossypii Glov. Rep. Comm. p. 121-130 (1854).

Aphis citrulli Ash. Florida Dispatch, Vol. 1, p. 241 (1882).

Aphis cucumeris Forb. 12th Report Ent. Ill. III, p. 83-91 (1883).

Hab.—Cosmopolitan.

F. P.—*Cucumeris*, *Bursa*, *Trifolium*, *Gossypium*, *Fragaria*, *Cucurbita*, *Malva*, *Ambrosia*, *Phaseolus*, *Spinacia*, *Lepidium*, *Convolvulus*, *Humulus*, *Rumex*, *Taraxacum*, *Asclepias*, *Rhamnus*, *Catalpa*, *Portulaca*, *Lappa*, *Chenopodium*, *Plantago*, *Stellaria*, *Acalypha*, *Nepeta*, etc.

Nom. Jap.—*Wata-abura*.

33. **Aphis kogomecola** Mats. (n. sp.)

Hab.—Hokkaido, Honshu.

F. P.—*Spiraea Thunbergi*.

Nom. Jap.—*Kogome-abura*.

34. **Aphis odorikonis** Mats. (n. sp.)

Hab.—Hokkaido, Honshu.

F. P.—*Lamium album*.

Nom. Jap.—*Odoriko-abura*.

35. **Aphis polygonacea** Mats. (n. sp.)

Hab.—Hokkaido.

F. P.—*Polygonum species*.

Nom. Jap.—*Taide-abura*.

36. ? **Aphis pomi** Deg.

Aphis pomi Deg. Ueber. III, p. 36, t. 3, f. 18-21 (1780).

Aphis mali F. Ent. Syst. IV, p. 216, (1794).

Aphis oxyacanthae Schr. Faun. Boic. II, p. 116, (1801).

Hab.—Jap. (Hok., Honshu); Europe, N. America.

F. P.—*Pirus mali*, *P. sinensis*, *Crataegus oxyacanthae*.

Nom. Jap.—*Ringo-abura*.

37. ? **Aphis rumicis** L.

A. *rumicis* L. Syst. Nat. p. 451 (1758).

Aphis craccae L. Syst. Nat. p. 452 (1758).

A. *atriplicis* L. Faun. Suec. p. 262 (1761).

A. *fabae* Scop. Ent. Carn. p. 139 (1763).

A. *genistae* Scop. Ent. Carn. p. 139 (1763).

A. hortensis F. Sp. Ins. II, p. 387 (1781).
 A. viciae F. Sp. Ins. II, p. 390 (1781).
 Aphis aparines F. Ent. Syst. IV, p. 212 (1794).
 A. papaveris F. Ent. Syst. IV, p. 218 (1794).
 A. chenopodii Schr. Faun. Boic. II, p. 109 (1801).
 A. thalapseos Schr. Faun. Boic. II, p. 118. (1801).
 A. armata Haus. Illig. Mag. I, p. 439 (1802).
 A. euphorbiae? Kalt. Monog. p. 74 (1843).
 A. galii? Kalt. Monog. p. 87 (1843).
 A. laburni Kalt. Monog. p. 85 (1843).
 Hab.—Cosmopolitan.
 F. P.—*Rumex*, *Carduus*, *Polygonum*, *Peucedanum*, *Borago*, *Digitalis*, *Phaseolus*, *Vicia*,
Vigna, *Papaver*, *Galium*, *Chenopodium* etc.
 Nom. Jap.—*Mame-abura*.

38. **Aphis sambuci** L.
 Aphis sambuci L. Syst. Nat. p. 451 (1758).
 Hab.—Japan; Europe.
 F. P.—*Sambucus racemosa*.
 Nom. Jap.—*Niwatoko-abura*.

39. **Aphis yanagicola** Mats. (n. sp.)
 Hab.—Hokkaido, Honshu.
 F. P.—*Salix daphnoides*.
 Nom. Jap.—*Yanagi-abura*.

Gen: 15. *Hyalopterus* Koch. (1857).
 (*Hyalopteris* Hunter).

40. **Hyalopterus pruni** F.
 Aphis pruni F. Ent. Syst. IV, p. 214 (1794).
 Aphis arundinis F. Ent. Syst. IV, p. 212 (1794).
 Hyalopterus pruni Koch. Aphid. p. 22, f. 19, 30 (1857).
 Hyalopterus arundinis Koch Aphid., p. 21, f. 27, 28 (1857).
 Hab.—Japan; Europe, N. America.
 F. P.—*Prunus*, *Arundo*.
 Nom. Jap.—*Ume-kofuki-abura*.

41. **Hyalopterus abietinus** Mats. (n. sp.)
 Hab.—Hokkaido (Sapporo).
 F. P.—*Abies sachalinensis*.
 Nom. Jap.—*Todo-kofuki-abura*.

Gen. 16. **Yezabura** Mats. (n. g.)

42. **Yezabura sasae** Mats. (n. sp.)

Hab.—Hokkaido (Sapporo).
 F. P.—*Sasa paniculata*.
 Nom. Jap.—*Sasa-kuromiyaku abura*.
 Gen. 17. *Siphocoryne* Pass. (1860).

43. **Siphocoryne acericola** Mats. (n. sp.)
 Hab.—Hokkaido (Sapporo).
 F. P.—*Acer palmatum*.
 Nom. Jap.—*Monji-kubire-abura*.

44. *Siphocoryne avenae* F.
Aphis avenae F. Ent. Syst. IV, p. 214, 22 (1794).
Aphis padi Kalt. Monog. p. 74 (1843).
Siphocoryne avenae Patch. Maine. Agr. Exp. St. Bull. 202, p. 172. (1912).
 Hab.—Japan (Hok. Honshu); Europe, N. America.
 F. P.—*Prunus, Avena, Triticum, Hordeum, Elymus, Bromus, Poa, Melica, Andropogon, Panicum* etc.
 Nom. Jap.—*Kibi-kubire-abura*.

45. **Siphocoryne fraxinicola** Mats. (n. sp.)
 Hab.—Hokkaido (Sapporo), Honshu.
 F. P.—*Fraxinus longicuspis*.
 Nom. Jap.—*Aodamo kubire-abura*.

46. *Siphocoryne nymphaeae* L.
Aphis nymphaeae L. Faun. Suec. p. 260 (1761).
Rhopalosiphum nymphae Patch. Main. Agr. Exp. St. Bull. N. 200, p. 171 (1912).
Siphocoryne nymphaeae Theob. Bull. Ent. Research. VI, Pt. II, p. 118 (1915).
 Hab.—Hokkaido (Sapporo), Honshu, Kiushu; Europa, America.
 F. P.—*Sagittaria, Nymphaea, Nelumbo*.
 Nom. Jap.—*Kuwai-kubire-abura*.
 Gen. 18. *Melanoxanthus* Buck. (1877).

47. **Melanoxanthus vignae** Mats. (n. sp.)
 Hab.—Honshu (Tamba).
 F. P.—*Vigna sinensis*.
 Nom. Jap.—*Sasage-tsubo abura*.
 Gen. 19. **Nipposiphum** Mats. (n. g.)

48. **Nipposiphum salicicola** Mats. (n. sp.)
 Hab.—Hokkaido (Sapporo).
 F. P.—*Salix babylonica*.
 Nom. Jap.—*Yanagi-onaga-abura*.
 Gen. 20. *Macrosiphum* Pass. (1860)
Siphonophora Koch, *Nectarophora* Oestlund.

49. **Macrosiphum malvicola** Mats. (n. sp.)

Hab.—Hokkaido (Sapporo).
 F. P.—*Syringa*, *Malva*.
 Nom. Jap.—*Aoi-higenaga abura*.

50. **Macrosiphum kuricola** Mats. (n. sp.)
 Hab.—Honshu, Shikoku.
 F. P.—*Castanea crenata*.
 Nom. Jap.—*Kuri-higenaga abura*.

51. **Macrosiphum (Macrosiphoniella) chrysanthemi** Del Guer.
 Hab.—Japan; Europa, Africa.
 F. P.—*Chrysanthemum species*.
 Nom. Jap.—*Kiku-higenaga abura*.

52. **Macrosiphum petasitis** Mats. (n. sp.)
 Hab.—Hokkaido, Honshu.
 F. P.—*Petasites japonicus*.
 Nom. Jap.—*Fuki-higenaga abura*.

53. **Macrosiphum gobonis** Mats. (n. sp.)
 Hab.—Hokkaido, Honshu.
 F. P.—*Arctium lappa*.
 Nom. Jap.—*Gobo-higenaga abura*.

54. **Macrosiphum granaria** Kby.
Aphis granaria Kirby—Linn. Trans. IV, p. 238 (1795).
Aphis cerealis Kalt. Mong. p. 16 (1843).
Siphonophora cerealis Koch, Aphid. p. 176, f. 255, 256 (1857).
Siphonophora granaria Buck Monog. Vol. 1, p. 114, t. 6, f. 1, 2, 3 (1875).
Nectarophora granaria Ost. Geol. Nat. Hist. Surv. Minnesota, Bull. (4), p. 82 (1887).
 Hab.—Japan; Europe, N. America.
 F. P.—*Secale*, *Triticum*, *Avena*, *Bromus*, *Oryza*.
 Nom. Jap.—*Mugi-higenaga abura*.

55. **Macrosiphum hagicola** Mats. (n. sp.)
 Hab.—Hokkaido (Sapporo).
 F. P.—*Lespedeza bicolor*.
 Nom. Jap.—*Hagi-higenaga abura*.

56. **Macrosiphum ibarae** Mats. (n. sp.)
 Hab.—Honshu (Tamba).
 F. P.—*Rosa multiflora*.
 Nom. Jap.—*Ibara-higenaga abura*.

57. **Macrosiphum lili** Monell.
Macrosiphum lili Monell, Rep. Dep. Agr. p. 221 (1879).
 Hab.—Japan; N. America.
 F. P.—*Lilium species*.

Nom. Jap.—*Yuri-higenaga-abura*.

58. **Macrosiphum mumecola** Mats. (n. sp.)
 Hab.—Hokkaido.
 F. P.—*Prunus mume*.
 Nom. Jap.—*Ume-higenaga-abura*.

59. Macrosiphum pisi Kalt.
Aphis pisi Kalt. Monog. p. 23 (1843).
Aphis onobrychis Fonc. Ann. Soc. Ent. Fr. X, p. 169 (1841).
Aphis lathyri Osw. Mosel, Gard. Chron. X, p. 169 (1841).
Aphis pisum Harris, Exp. Engl. Ins. p. 66, t. 17, f. 1c-12 (1776).
 Hab.—Japan; Europe.
 F. P.—*Pisum*, *Lotus*, *Ononis*, *Trifolium*, *Lathyrus*, *Sparium*, *Colutea*, *Geum*, *Spiraea*,
Epilobium, *Capsella*, *Chaerophyllum* etc.
 Nom. Jap.—*Endo-higenaga-abura*.

60. **Macrosiphum primulana** Mats. (n. sp.)
 Hab.—Hokkaido, Honshu.
 F. P.—*Primula cortusoides*.
 Nom. Jap.—*Sakuraso-higenaga-abura*.

61. Macrosiphum rosae L.
Aphis rosae L. Faun. Suec. p. 260 (1761).
 Hab.—Cosmopolitan.
 F. P.—*Rosa indica* and the allied species.
 Nom. Jap.—*Bara-higenaga-abura*.

62. **Macrosiphum senecionis** Mats. (n. sp.)
 Hab.—Hokkaido (Sapporo).
 F. P.—*Senecio palmatus*.
 Nom. Jap.—*Nanatsuba-higenaga-abura*.

63. Macrosiphum solani Kalt.
Aphis solani Kalt. Monog. Aphid. p. 15 (1843).
 Hab.—Japan; Europe.
 F. P.—*Solanum*, *Lycopersicum*, *Physalis*, *Glycine*, *Pisum*, *Lespedeza*, *Capsella*.
 Nom. Jap.—*Jagaimo-higenaga-abura*.

64. **Macrosiphum sonchicola** Mats. (n. sp.)
 Hab.—Hokkaido (Sapporo).
 F. P.—*Sonchus arvensis*
 Nom. Jap.—*Hachijona-abura*.

65. **Macrosiphum yomogicola** Mats. (n. sp.)
 Hab.—Hokkaido, Honshu.
 F. P.—*Artemisia japonica*.
 Nom. Jap.—*Yomogi-higenaga-abura*.

Gen. 21. *Rhopalosiphum* Koch (1857).

66. *Rhopalosiphum persicae* Sulz.

Aphis persicae Sulz. Hist. Ins. p. 105, t. 11 (1761).

Aphis dianthi Schr. Faun. Boic. II. p. 114, 1213 (1801).

Aphis institiae Koch, Aphid. p. 58, f. 74, 75 (1857)

Aphis persicaecola Boisd. Buck. Monog. Vol. I. p. 178 (1875).

Aphis persicophila Rond. Buck. Monog. Vol. I. p. 178 (1875).

Myzus persicae Pass. Buck. Monog. Vol. I. p. 178 (1875).

Myzus achyrantes Monell. Bull. U. S. Geol. Sur. Terr. Vol. V, No. 1. p. 18 (1879).

Myzus malvae Oest. Geol. Surv. Minn. 14th Rep. p. 31 (1886)

Hab.—Cosmopolitan.

F. P.—*Raphanus*, *Brassica*, *Sinapis*, *Capsella*, *Dianthus*, *Fuchsia*, *Tulipa*, *Crocus*, *Narcissus*, *Mesembryanthemum*, *Hyacinthus*, *Verbena*, *Solanum*, *Physalis*, *Lycopersicum*, *Ipomaea*, *Humulus*, *Cucumeris*, *Astragalus*, *Glycine*, *Paulownia*, *Prunus*, *Pyrus*, *Citrus*, etc

Nom. Jap.—*Aka-tokkuri-abura*.

Gen. 22. *Myzus* Pass. (1860).

(*Ceylonia* Buck.)

67. *Myzus momonis* Mats. (n. sp.)

Hab.—Hokkaido (Sapporo).

F. P.—*Prunus persica*.

Nom. Jap.—*Momo-kobu-abura*.

68. *Myzus sakurae* Mats. (n. sp.)

Hab.—Hokkaido (Sapporo).

F. P.—*Prunus sachalinensis*.

Nom. Jap.—*Sakura-kobu-abura*.

Myzus sasakii Mats. (n. sp.)

Hab.—Honshu (Tokyo).

F. P.—*Prunus pseudo-cerasus*.

Nom. Jap.—*Sakura-fushi-abura*.

Gen. 23. *Phorodon* Pass. (1860)

69. *Phorodon humuli* Schr.

Aphis humuli Schr. Faun. Boic. II, p. 110, 1199 (1801).

Aphis pruni Scop. Ent. Carn. p. 138, 406 (1763).

Aphis humulifex Amy. Ann. Soc. Ent. Fr. (2) 5, p. 477 (1847).

Phorodon humuli Pass. Buck. Monog. Vol. I. p. 166, t. 30, f. 1-11 (1875).

Hab.—Japan; Europe.

F. P.—*Humulus*, *Prunus*.

Nom. Jap.—*Hoppu-ibo-abura*.

70. *Phorodon asacola* Mats. (n. sp.)

Hab.—Hokkaido (Sapporo).

F. P.—*Cannabis sativa*.

Nom. Jap.—*Asa-ibo abura*.

Gen. 24. **Abura** Mats. (n. g.)

71. **Abura momocola** Mats. (n. sp.)

Hab.—Honshu (Tamba).

F. P.—*Prunus persica*.

Nom. Jap.—*Momo-ashinaga abura*.

Gen. 25. **Arimakia** Mats. (n. g.)

72. **Arimakia taranbonis** Mats. (n. sp.)

Hab.—Hokkaido (Sapporo).

F. P.—*Aralia sinensis*.

Nom. Jap.—*Taranbo-ashibuto-abura*.

73. **Arimakia araliae** Mats. (n. sp.)

Hab.—Hokkaido (Sapporo).

F. P.—*Aralia sinensis*, *A. cordata*, *Rhus vernicifera*.

Nom. Jap.—*Udo-ashibuto-abura*.

Gen. 26. **Yamataphis** Mats. (n. g.)

74. **Yamataphis oryzae** Mats. (n. sp.)

Hab.—Hokkaido.

F. P.—*Sativa oryza*.

Nom. Jap.—*Ine-abura*.

75. **Yamataphis rufiabdominalis** Sasak.

Toxoptera rufiabdominalis Sasak. Nippon Nosakubutsu-Gaichu-Hen, p. 428, f. 196 (1900).

Hab.—Hokkaido, Honshu, Kiushu, Formosa.

F. P.—*Oryza sativa*, attacking the root.

Nom. Jap.—*Ine-aka-abura*.

Gen. 27. **Yezaphis** Mats. (n. g.)

76. **Yezaphis sasicola** Mats. (n. sp.)

Hab.—Hokkaido (Sapporo).

F. P.—*Sasa paniculata*.

Nom. Jap.—*Sasa-higeboso-abura*.

Gen. 28. Toxoptera Koch. (1857)

77. **Toxoptera citriolia** Maki, Rep. Exp. St. Formosa, No. 8, p. 123 (1913).

Hab.—Kiushu ?, Formosa.

F. P.—*Citrus species*.

Nom. Jap.—*Mikan-abura*.

78. **Toxoptera piricola** Mats. (n. sp.)

Hab.—Shikoku (Iyo).

F. P.—*Pirus sinensis*.

Nom. Jap.—*Nashi-abura*.

2. Tribus Trichosiphoni.

Gen. 29. *Trichosiphum Pergand.* (1906)79. *Trichosiphum kuwanea* Perg.

Trichosiphum kuwanea Perg. Ent. News, Philad. Vol. XVII, (6) p. 209 (1906); Okajim.
 Bull. Agr. Coll. Tokyo, Vol. VIII, p. 2, t. 4, f. 1-5, 15-16 (1908).

Hab.—Honshu, Kiushu.

F. P.—*Quercus serrata*, *Q. acuta*.Nom. Jap.—*O-kebuka-abura*.80. *Trichosiphum tenuicorpus* Okaj.

Trichosiphum tenuicorpus Okaj. Bull. Agr. Coll. Tokyo, Vol. VIII, p. 4, f. 6-10 18 (1908).
 Hab.—Honshu, Kiushu.

F. P.—*Pasania cuspidata*.Nom. Jap.—*Hosonaga-kebuka abura*.81. *Trichosiphum pasaniae* Okaj.

Trichosiphum pasaniae Okaj. Bull. Agr. Coll. Tokyo, Vol. VIII, p. 5, t. 4, f. 11-14,
 19-20 (1908).

Hab.—Honshu, Kiushu.

F. P.—*Quercus serrata*, *Q. acuta*, *Pasania cuspidata*.Nom. Jap.—*Ko-kebuka-abura*.

Description of New Species and Genera.

1. *Nippocallis* n. g.

Somewhat allied to *Myzocallis* PASS.

Antennae much shorter than the body, the first and 2nd joints large and globose, the 3rd the longest, the 4th, 5th and 6th gradually decreasing in length, anterhinaliarial as long as and narrower than the postrhinarial, all the joints, except the 6th, with long erect bristles, each arising from a small tubercle; frontal margin with long bristles, each arising from a tubercle; pronotum somewhat longer than the head; forewings somewhat longer than the body, ample, stigma fusiform, the broadest part rather near the apex, media strongly curved, with 2 furcals, the first oblique perpendicular to the cubitus and far more separated from the 2nd oblique than the media is, stigmatic nervure absent, base of the media obsolete and where the cubitus strongly excurved, a large part along the veins strongly infuscated; hind wings with 2 obliques, the first nearly perpendicular to the cubitus, the 2nd somewhat oblique, the part of the cubitus where the 2nd oblique opens is strongly incurved; abdomen broad and roundish; cornicles short, rather large, as broad as the length; cauda roundish, at the base constricted; legs much broader than the antennae; empodial hairs clavate, somewhat longer than the claws.

Genotype—*Nippocallis kuricola* MATS.

This genus may easily be distinguished from *Myzocallis* PASS. by the absence of the stigmatic nervure to the fore-wings.

1. *Nippocallis kuricola* n. sp. (Pl. XVII, f, 8, a, b, c.)

Winged viviparous female—Body yellowish brown (in alcohol), oval, towards the cauda broader; antennae pale yellowish, much shorter than the body, the first 2 joints somewhat darker in color, the 3rd joint much the longest, with a few long hairs on the innerside, on the outerside with about 6 roundish sensoria, the 4th subequal to the 5th, the 6th being the shortest, anterhinaliarial somewhat shorter than the postrhinarial, apices of the 3rd, 4th, 5th and the middle of the 6th, infuscated; front with some conical projec-

tions, from each of which producing a long bristly hair; rostrum not reaching to the 2nd coxae; wings hyaline, along the veins broadly fuscous banded, costal region in the middle and near the base infuscated, stigma fulvous, 2nd furcal near the middle of the first; abdomen fuscous spotted, with 2 large whitish spots between the cornicles; cornicles short, very broad at the bases, shorter than wide; cauda short, roundish, with long hairs; legs pale fulvous, coxae brownish.

Length of body 2. mm.; exp. tegm. 5.8 mm.; antennae 1.3 mm.

Apterous viviparous female differs from the winged viviparous female as follows:—Body smaller, with much more projections and bristly hairs; antennae less than one half the length of the body, the 3rd joint without sensoria, the 4th distinctly longer than the 5th; abdomen above more conspicuously fuscous spotted; cornicles as long as wide; cauda much larger.

Length of body 1.6—1.9 mm.; antennae 0.8 mm.

Hab.—Shikoku (Iyo).

F. P.—*Castanea crenata*, collected by Mr. SHIGERU ARAKAWA.

Nom. Jap.—*Kuri-madara-abura*.

2. **Yamatocallis** n. gen.

Closely allied to *Drepanosiphum* KOCH, but differs from it as follows:

Rostrum short, reaching only to the anterior part of the mesonotum. Antennae very long, nearly $1\frac{1}{2}$ the length of the body, frontal tubercles conspicuous, the first joint nearly 4 times as large as the 2nd, the 3rd somewhat longer than the 4th, with a single row of rod-like sensoria near the basal half, the 4th, 5th and 6th subequal, anterhinalia somewhat slender, filiform, and $1\frac{1}{2}$ the length of the postrhinalia; fore wings longer than the antennae, stigma lanceolate, stigmatic nervure opening rather near the apex, media at the base obsolete, and where the media opens the cubitus deeply excused; hind wings with 2 obliques much separated from each other and obsolete at the bases, cubitus beneath the hooklets deeply incurved; cornicles moderately long, near the apices curved, towards the base strongly enlarged;

cauda broadly conical, short, the lower genital plate scarcely incised at the hind margin, with long, curved hairs; legs moderately long, the anterior femora much enlarged, near the apex beneath with a tooth-like projection; empodial hairs spatulate and much shorter than the claws.

Genotype—*Yamatocallis hirayamae* MATS.

2. *Yamatocallis hirayamae* n. sp.

Winged viviparous female—Body oblong, yellowish brown; antennae yellowish brown, $1\frac{1}{2}$ the length of the body, the 3rd joint with about 15-18 rod-like sensoria at the basal one third, the 4th, 5th and 6th subequal, anterhinal 1 $\frac{1}{2}$ the length of the postrhinal; compound eyes brown; rostrum robust, at the apex fuscous; fore wings hyaline, with a slight fulvous tinge, with a long brownish stripe, running from the base of the 2nd oblique to the tip of the wing, and being forked at the tip, stigma brownish, veins fulvous, the 2nd furcal arising from the middle of the first; hind wings at the part of the hooklets with a brownish spot; cornicles curved, from the middle down to the base much enlarged, mouth part strongly constricted; cauda broadly conical, with some curved bristly hairs; legs concolored, tibiae at the apices and tarsi, somewhat infuscated.

Length of body 2.6-3.5 mm.; exp. tegm. 9-15 mm.; antennae 3.5-5 mm.; cornicles 0.5 mm.

Hab.—Hokkaido (Sapporo), Honshu (Tokyo), Kiushu (Satsuma).

F. P.—*Abies sachalinensis*, and unknown hosts.

Nom. Jap.—*Hirayama-abura*.

Two specimens were sent by Mr. S. HIRAYAMA, one specimen was collected by the author at Sapporo on *Abies sachalinensis*, and 2 more were captured from an unknown plant by the same author at Satsuma.

3. *Acanthocallis* n. g.

Closely allied to *Myzocallis* PASS.

Antennae without distinct hairs, much shorter than the body, the 3rd joint on the outerside with 4 sensoria in a single row, anterhinal longer

than the postrhinarial; rostrum short, scarcely reaching to the 2nd coxae; wings short, somewhat longer than the body, 1st, 2nd and 3rd oblique nearly in parallel, stigmatic nervure obsolete in the middle, cubitus at the innerside of the stigma distinctly excurved, stigma short, nearly 4 times as long as broad, veins on the sides and at extremities clouded; first oblique of the hind wing nearly perpendicular to the cubitus, at the base being obsolete, 2nd oblique somewhat sloping, cubitus at the base of the 2nd oblique strongly incurved; abdomen much longer than the head and thorax combined, the first 4 segments each in the middle with one pair of long tubercles, of which the middle 2 being the longest; cornicles small, nearly 3 times as long as broad, scarcely dilated at the base; cornicles large, roundish; the bilobed lower genital plate much shorter than the cornicles; legs moderately long, the hind pair being much the longest, empodial hairs much shorter than the claws.

Genotype—*Acanthocallis quercicola* MATS.

3. ***Acanthocallis quercicola* n. sp. (Pl. XVII, f. 1, a, b, c, d.)**

Winged viviparous female—Body greenish brown, broad-fusiform; antennae much shorter than the body, fulvous, apices of the 3rd, 4th and 5th joints, as well as the postrhinarial infuscated, the 3rd somewhat shorter than the 4th and 5th taken together, with a few large sensoria in a single row, the 4th subequal to the 5th, anterhinarial scarcely longer than the postrhinarial; front with some conical tubercles, which carry on each apex a long bristle-like hair; rostrum not reaching to the 2nd coxae; wings subhyaline, pale grayish, veins fuscous, the extremities being clouded with brown, 2nd furcal near the middle of the first, stigma with 2 fuscous spots; cubitus of the posterior wing at the base of the 2nd oblique strongly incurved; abdomen on the sides with some tubercles, from each of which producing some fine hairs, the first 4 dorsal segments each with 2 long wart-like tubercles in the middle; cornicles short, much longer than wide; cauda roundish, on each side of which at the base with a roundish lobe, and with long hairs; legs greenish yellow, the hind femur in the middle largely fuscous.

Length of body 1.8-2.2 mm.; exp. tegm. 5 mm.; antennae 1.4 mm.

Pupa—Nearly the same as the winged viviparous female, but differs from it in having the body furnished with numerous scattered minute fuscous atoms, and also in having the shorter antennae, the 3rd antennal joint wanting sensoria, the smaller wingsheath which reaching beyond the base of the hind femur, dorso-abdominal segments lacking wart-like projections, broad-conical cauda and not infuscated hind femur.

Length of body 2.0-2.2 mm.; antennae 1.0 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Quercus grosserrata*, *Alnus incana*.

Nom. Jap.—*Nara-buchi-abura*.

4. **Yezocallis** n. gen.

Body long, fusiform; antennae broad, finely pubescent, somewhat longer than the body, the 3rd joint much the longest, with numerous oblong sensoria, the 4th and 5th wanting sensoria, anterhinal much narrower and somewhat shorter than the postrhinal; frontal tubercles very short, on the frontal margin wanting tubercles; rostrum short, robust, not reaching as far as the 2nd coxae; wings large, media nearly parallel to the 2nd oblique, at the extremities of the veins somewhat clouded; cubitus of the hind wings at the part of hooklets strongly incurved, 2 obliques strongly diverging towards the hind margin; cornicles very short, nearly as long as broad; cauda short, broad, much shorter than the lower genital plate, the latter being nearly straight at the hind margin and with numerous rigid hairs; legs long and robust, empodial hairs large and spatulate.

Allied somewhat to *Pterocallis* PASS. (*Kallistaphis* KIRK.)

Genotype—*Yezocallis kabae* MATS.

4. **Yezocallis kabae** n. sp. (Pl. XVI, f. 3, a, b, c, d.)

Winged viviparous female—Body oblong, dark green, head and thorax brownish; antennae scarcely longer than the body, with long hairs, fuscous, basal halves of the 4th, 5th and 6th joints yellowish, the 3rd joint with about

30 transverse sensoria in a single row, some of which being reduced to a roundish spot, subequal to the 4th and 5th taken together, anterhinarial distinctly shorter than the postrhinarial and much narrower; compound eyes reddish brown; rostrum scarcely reaching to the 2nd coxae; wings hyaline, with a slight yellowish tinge, veins and stigma pale fulvous, 2nd furcal nearly in the middle of the first, stigmatic nervure strongly curved near the base, at the end of each vein somewhat infuscated; abdomen above with 3 rows of fuscous spots, of which the middle spots being mostly oblong in shape; cornicles very short, tubercular; cauda none, genital segment rounded and with long hairs on the hind margin; legs dark green, femora at the bases and tibiae; except both ends, paler.

Length of body 2.5 mm.; exp. tegm. 6.2 mm.; antennae 2.6 mm.

Apterous viviparous female—Nearly allied to the winged viviparous female; the body fusiform; antennae greenish yellow, apices of the 3rd, 4th, 5th and postrhinarial being fuscous; rostrum nearly reaching to the 3rd coxae; fuscous spots of the abdomen less distinct.

Length of body 2.4 mm.; antennae 2.3 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Betula japonica*.

Nom. Jap.—*Kaba-buchi-abura*.

It has no resemblance to the European *Myzocallis betularius* KALT.

5. **Yezocallis alniaria** n. sp.

Winged viviparous female—Body oblong, fuscous brown; antennae shorter than the body, with long hairs, fuscous, the first 2 joints and the bases of the 3rd paler, the 3rd with numerous oblong sensoria in two or three rows, subequal to the 4th and 5th taken together, the 4th a little longer than the 5th, anterhinarial very narrow and much shorter than the postrhinarial, at the extreme apex being paler; rostrum not reaching to the 2nd coxae; wings hyaline, with a slight fulvous tinge, stigma grayish brown, veins fulvous, 2nd furcal near the middle of the first; abdomen with 3 longitudinal rows of

dark grayish spots, of which the middle ones being oblong in shape; cornicles very short, as long as wide, genital segment on the hind margin straight, on the sides rounded, with long hairs; legs fulvous, apices of the two anterior femora and tibiae, all the tarsi, as well as the posterior femora (except the bases) and tibiae, fuscous.

Length of body 3.5 mm.; exp. tegm. 9 mm.; antennae 2.8 mm.

Apterous viviparous female—Nearly the same as the winged viviparous female, differing in the following points:

Body fusiform, dark greenish; antennae fulvous, apices of the 3rd, 4th, 5th and 6th fuscous, the 3rd having less sensoria; rostrum reaching to the 2nd coxae; abdominal rows of spots not distinct; cornicles very short, much shorter than wide; lower genital plate at the hind margin bilobed; legs largely fulvous, apices of the femora and tibiae, as well as all the parts of the tarsi, fuscous.

Length of body 3.1 mm.; antennae 2.3 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Alnus japonicus*, *Betula japonica*.

Nom. Jap.—*Hanno-buchi-abura*.

It resembles closely to *Yezocallis kabae* MARS., from which it may easily be distinguished by the smaller size of the body and the coloration.

6. *Myzocallis kashiwae* n. sp.

Winged viviparous female—Body oblong, pale yellowish, with a greenish tinge; compound eyes crimson-red; antennae much longer than the body, apices of the 3rd, 4th and 5th joints, as well as postrhinal and the base of the anterhinal, fuscous, the 3rd joint with 3 round sensoria in a single row, somewhat shorter than the 4th and 5th taken together, anterhinal $1\frac{1}{2}$ the length of the postrhinal; front with some conical tubercles, each of which carrying one long hair; rostrum not reaching to the 2nd coxae; wings hyaline, scarcely fulvous tinged, veins pale yellowish brown, stigma pale yellowish, the extremities of veins not clouded with pigment; abdomen wanting any

marking, short; cornicles short, somewhat longer than wide, at the apices infuscated; cauda large, broader than long, on the hind margin rounded; legs whitish, tarsi at the apices scarcely infuscated.

Length of body 1.2-1.3 mm.; exp. tegm. 4-4.5 mm.; antennae 1.5-1.6 mm.

Apterous viviparous female—Nearly the same as the winged viviparous female, except the antennae shorter than the body, the 3rd joint not infuscated at the tip and wanting sensoria, anterhinalia nearly twice as long as the post-rhinalia, abdomen with numerous tubercles and bristle-hairs on the sides, cornicles not infuscated at the apices, cauda small.

Length of body 1.2 mm.; antennae 0.8 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Quercus dentata* (under the leaves).

Nom. Jap.—*Kashiwa-buchi-abura*.

Closely allied to the European *M. (Tuberculatus) quercus* KALT.,¹⁾ but differs from it in having longer anterhinalia, wanting angular projections to the abdominal segments.

7. *Myzocallis sasae* n. sp. (Pl. XVI, f, 2, a, b, c, d.)

Winged viviparous female—Body yellowish green, oblong; compound eyes crimson-red; antennae pale yellowish, subequal to the body, the 3rd joint with 5 oblong sensoria in a single row, apices of the 3rd, 4th, 5th joints and the whole part of the 6th, infuscated, anterhinalia as long as the post-rhinalia, the 4th a little shorter than the 5th, the 5th subequal to the 6th; wings hyaline, with a fulvous tinge, stigma in the middle hyaline, veins yellowish brown, extremities of the veins clouded with brown; abdomen wanting any marking, except some crimson-red eyes of the larvae visible through the skin; cornicles short, paler, as long as wide; cauda paler, roundish, at the base somewhat constricted; legs pale yellowish green.

Length of body 1.7 mm.; exp. tegm. 5.5 mm.; antennae 1.6 mm.

1) KOCH—Aphid. p. 218, b. 290, 291 (1857).

Pupa—Nearly the same as the winged viviparous female, but differs from it in having the antennae much shorter, the 3rd joint wanting sensoria, anterhinarial somewhat longer than the postrhinarial, body with numerous conical projections, carrying a long bristle on each apex, wingsheath nearly reaching to the middle of the hind femur, cauda wanting and legs shorter.

Length of body 1.7 mm.; antennae 1.0 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Sasa paniculata*.

Nom. Jap.—*Sasa-buchi-abura*.

5. *Takecallis* n. g.

Near *Myzocallis* PASS.

Antennae nearly twice as long as the body, the first joint broader and longer than the 2nd, the 3rd the longest, much shorter than the 4th and 5th taken together, the 4th, 5th and 6th subequal, anterhinarial somewhat more slender and subequal to the postrhinarial, at the rhinarium broader, and spindle-shaped; frontal margin without distinct tuberculous projections and bristles; legs long and slender, the anterior tibiae nearly twice as long as the same femora, the hind femora much elongated; the other characters as those of *Myzocallis* PASS.

Genotype—*Takecallis bambusae* MATS.

8. *Takecallis bambusae* n. sp. (Pl. XVI, f. 1, a, b, c, d.)

Winged viviparous female—Body oblong, pale yellowish, head and pronotum fulvous; antennae white, very long, nearly twice as long as the body, 2 basal joints fulvous, the 3rd, 4th, 5th and the middle part of the 3rd, black, the 3rd much the longest, with about 5 oblong sensoria on the black middle part, somewhat shorter than the 4th and 5th taken together, the 4th and 5th subequal, anterhinarial subequal to the postrhinarial; somewhat infuscated at the apex of the postrhinarial; rostrum not reaching to the 2nd coxae; wings hyaline, veins and stigma nearly colorless, first oblique and the base

of the stigmatic nervure somewhat fulvous, tips of all the veins clouded with fuscous; cornicles short, somewhat longer than wide, whitish; cauda roundish, brownish in color; crimson-red eyes of the larvae being visible through the skin; legs long, whitish, tibiae at the apices and tarsi, scarcely infuscated.

Length of body 1.2-2 mm.; exp. tegm. 5.6-7 mm.; antennae 2.5-3.5 mm.

Pupa—Nearly the same as the winged viviparous female, only differing in the following points:

Front with 4 tubercles, carrying a rigid hair on each apex; antennae shorter, the 3rd joint wanting sensoria and the fuscous part in the middle; wingsheath reaching to the 2nd abdominal segment; abdomen with the cornicles whitish, cauda shorter; legs shorter and robuster.

Length of body 1.5 mm.; antennae 2.1 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Sasa paniculata*.

Nom. Jap.—*Take-higenaga-buchi-abura*.

9. *Myzocallis sawashibae* n. sp.

Winged viviparous female—Body oblong, pale fulvous, head with a brownish shade; compound eyes crimson-red; antennae somewhat shorter than the body, whitish, apices of the 3rd, 4th and 5th, as well as the post-rhinal infuscated, the 3rd joint with a few large oblong sensoria in a single row, anterhinal subequal to the postrhinal; rostrum not reaching to the 2nd coxae; wings hyaline, with a slight fulvous tinge, much longer than the antennae, veins pale brown, at the base of the first oblique fuscous spotted, stigma and cubitus nearly hyaline, 2nd furcal near the middle of the first, the extremities of the veins scarcely infuscated; abdomen wanting any marking; cornicles whitish, nearly as long as wide; cauda very short, the lower genital plate bilobed, as long as the cauda; legs whitish, apex of the hind femur above and the apical half of the anterior tibia, fuscous.

Length of body 1.2 mm.; exp. tegm. 3.6 mm.; antennae 1.0 mm.

Apterous viviparous female—Body fusiform, pale yellow, with numerous fuscous tubercles, somewhat arranged in 4 rows, each of which carrying a strong, long, capitate hair; antennae much shorter than the body, whitish, apices of the 3rd, 4th and 5th, as well as the whole part of the 6th infuscated, anterhinarial subequal to the postrhinarial, the 3rd joint wanting sensoria; rostrum short, not reaching to the 2nd coxae; cornicles very short, as long as wide; cauda large, somewhat longer than the lower genital plate, on its hind margin with some very fine hairs; legs pale yellowish.

Length of body 1.4 mm.; antennae 0.7 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Carpinus cordata*.

Nom. Jap.—*Sawashiba-buchi-abura*.

In Europa *Myzocallis carpinii* KOCH is injurious to *Carpinus betulus*, and has some resemblance to my species; our species resembles rather to *M. juglandicola* KOCH, from which it differs in having the longer anterhinarial.

6. *Arakawana* n. g.

Allied to *Chaitophorus* KOCH, from which it differs as follows:

Frontal tubercles distinct; antennae somewhat longer than the body, the first joint with 2 tubercles on the inner side, the 3rd joint only with a few sensoria in a single row, with less bristly hairs; pronotum near the base on each side with a small tubercle; wings long and narrow, stigmatic nervure indistinct, cubitus of the hind wings at the base of the 2nd oblique strongly incurved; cauda roundish, the lower genital plate deeply bilobed.

Genotype—*Arakawana stigmata* MATS.

10. *Arakawana stigmata* n. sp. (Pl. XVII, f. 5, a, b.)

Winged viviparous female—Body oblong, black, with a greenish shade; antennae except the first 2 joints, which being fuscous, pale yellowish, apices of the 3rd, 4th, 5th and the middle of the 6th, infuscated, anterhinarial nearly twice as long as the postrhinarial; wings hyaline, stigma black, crescent-

shaped, veins pale brownish, first oblique at the base fuscous spotted, 2nd furcal in the middle of the first; abdomen broadest between the cornicles; cornicles short, nearly twice as broad at base as long; cauda and lateral lobes roundish, with some long bristly hairs; the anterior 4 legs yellowish, the hind legs fuscous, the bases of the latter being paler.

Length of body 1.8 mm.; exp. tegm. 6 mm.; antennae 1.2 mm.; cauda 0.2 mm.

Hab.—Shikoku (Iyo).

F. P.—*Quercus glandulifera*; collected by Mr. SHIGERI ARAKAWA.

Nom. Jap.—*Arakawa-abura*.

11. *Chaitophorus salicicola* n. sp.

Winged viviparous female—Body oblong, greenish yellow, head, thorax and some bands to the abdomen, fuscous; antennae greenish yellow, somewhat longer than the body, the first 2 joints fuscous, the 3rd yellowish, at the apex being infuscated, somewhat shorter than the 4th and 5th taken together, the 4th shorter than the 5th, anterhinaliar nearly 4 times as long as the post-rhinaliar, the 3rd, 4th and 5th with numerous sensoria; front with many whitish bristles; compound eyes reddish; rostrum reaching to the 2nd coxae; wings hyaline, veins and stigma dark green, 2nd furcal near the base of the first; abdomen oval, dorsal segment with a fuscous band, which not reaching to the lateral sides; cornicles short, nearly twice as long as wide, near the apices somewhat infuscated; cauda very small; legs greenish yellow, femora and tibiae at the apices, somewhat darker.

Length of body 1.2 mm.; exp. tegm. 4 mm.; antennae 1.3 mm.

Apterous viviparous female—Nearly the same as the winged viviparous female, except that the body fuscous, the antennae much shorter than the body, the 3rd joint wanting sensoria, the body with much more hairs and tubercles, cornicles very short and becoming wart-like, cauda wanting.

Length of body 1.3 mm.; antennae 1. mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Salix caprea*.

Nom. Jap.—*Yanagi-keabura*.

7. **Hannabura** n. g.

Apterous viviparous female—Body fusiform; antennae without hairs, much longer than the body, the 6th joint filiform, much the longest, anterhinarial much longer and somewhat narrower than the postrhinal, the 4th somewhat shorter than the 5th, frontal tubercles none, the 1st joint on the inner side somewhat projected; on the frontal margin with numerous tubercles, from each apex of which producing a long capitate hair; rostrum not reaching to the 2nd coxae; thorax and abdomen with numerous tubercles, each producing a long capitate hair; cornicles short, but distinctly longer than broad at base, before the mouth much constricted; cauda small, round, the lower genital plate on the hind margin rounded, with 6 long tubercles, of which the middle two being the largest, each carrying a long, broad capitate hair; legs slender, the hind legs being much the longest, having no distinct hairs, empodial hairs short and broadly spatulate.

This genus resembles somewhat to *Sipha* Pass.

Genotype—*Hannabura alnicola* MATS.

12. **Hannabura alnicola** n. sp. (Pl. XVII, f. 2, a, b, c, d.)

Apterous viviparous female—Body pale yellowish; antennae whitish, about $1\frac{1}{2}$ the length of the body, apices of the 3rd, 4th, 5th joints as well as the post- and anterhinarial infuscated, anterhinarial nearly 3 times as long as the postrhinal; abdomen at the base broadest, crimson-red eyes of the larvae being visible through the skin; cornicles at the base somewhat clouded, at the base broader; cauda and the lower genital plate whitish; legs paler than the ground color, at the extreme apices of the tarsi infuscated.

Length of body 1.5 mm.; antennae 2.2 mm.; cornicles 0.12 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Alnus incana*.

Nom. Jap.—*Hanno-higenaga-keabura*.

13. *Pterochlorus japonicus* n. sp.

Winged viviparous female—Body black, oblong; antennae nearly one half the length of the body, with numerous long hairs, the 3rd joint much the longest, the 4th and 5th subequal, the 6th only one half the length of the 5th, anterhinal small, distinctly shorter than the postrhinal; rostrum long, nearly reaching to the cauda; wings fuscous, opaque, in the middle between the 2nd oblique and media with a hyaline oblique band, marginal cell near the base with an oval hyaline spot, a space below the stigma, namely between the cubitus and 1st furcal whitish or with 2 whitish spots, 2nd furcal near the middle of the 1st; hind wings subhyaline, with a grayish tinge, at the base darker, abdomen oval, at the caudal part conical, with long hairs; cornicles short, shorter than broad; legs black, with many long hairs, the posterior legs being much longer.

Length of body 2.8 mm.; exp. tegm. 12 mm.; antennae 1.4 mm.

Apterous viviparous female—Body fuscous, towards the apex of the abdomen broader; antennae longer than one half the length of the body, brownish, the 3rd joint distinctly longer than the 4th and 5th taken together, the 4th and 5th subequal, anterhinal small, pointed at the apex, shorter than the postrhinal; rostrum longer than the body, projecting somewhat beyond the cauda; cornicles very short and broad, mouth funnel-shaped; legs brownish, the hind legs being very long.

Length of body 2.5 mm.; antennae 2 mm.

Hab.—Hokkaido, Honshu, Shikoku, Kiushu.

F. P.—*Quercus glandulifera*, *Q. dentata*, *Castanea crenata*.

Nom. Jap.—*Kuri-ōabura*.

Closely allied to the European *P. roboris* L.

14. *Pterochlorus ogasawarae* n. sp.

Winged viviparous female—Body shining black; antennae somewhat

shorter than the body, the 3rd joint on the outerside with about 7, the 4th with 4, the 5th with 5 tuberculous sensoria, all nearly in a single row, anterhinalial nearly $1/4$ the length of the postrhinalial; vertex at the hind margin with 2 small dimples; thorax highly bulged, sutures being quite deep; fore wings hyaline, with a light fulvous tinge, stigma and a spot below it at the base black, veins very fine, pale fulvous, at the base of the stigmatic nervure with a fuscous cloud; hind wings hyaline, only the cubitus at the basal half fulvous; abdomen roundish, with large, short cornicles, cauda indistinct; legs black, femora at the bases brownish.

Length of body 1.6 mm.; exp. tegm. 8.5 mm.; antennae 1.6 mm.

Hab.—Honshu (Iwate).

F. P.—*Quercus* sp.?; collected by Mr. TEIZO OGASAWARA in July, 1903.

Nom. Jap.—*Ogasawara-ōabura*.

15. *Lachnus longipennis*, n. sp.

Winged viviparous female—Body fuscous, with fine pale yellowish hairs; antennae fuscous, bases of the 3rd and the following joints yellowish, the 3rd joint much longer than the following 2 taken together, the 6th subequal to the 5th, anterhinalial short, with 3 short hairs, the 4th somewhat shorter than the 5th, the 3rd with 14, the 4th with 2 and the 5th with 3 large tuberculous sensoria; rostrum long, reaching to the middle of the abdomen; pronotum dark brown, mesonotum fuscous; wings very long, nearly 3 times as long as the body, hyaline, costa, cubitus and stigma black, the stigma being very long, veins pale fulvous, and very slender; abdomen oblong, with series of whitish tubercles on a central line; cornicles conical, with broad bases, cauda short, roundish; legs long, especially on the hind ones, the basal one third being yellowish brown.

Length of body 6 mm.; exp. tegm. 21–22 mm.; antennae 2.1 mm.

Pupa—Pale yellowish brown, scattered with fuscous spots; antennae short, apices of 3rd, 4th, 5th and 6th infuscated, on the innerside with some long hairs; rostrum reaching to the 3rd ventral segment; wing-sheath reaching to

the middle of the 2nd ventral segment; abdomen long, cornicles very short, shorter than wide, genital plate fuscous; legs yellowish, knees, tibiae at the apices, and tarsi, infuscated.

Length of body 4.2 mm.; antennae 1.5 mm.

Grown larvae—Fuscous, grayish pulverous, and oblong in form; antennae robust, yellowish, apex of each joint, except the first 2 joints, fuscous; rostrum reaches to the first ventral segment; thorax and abdomen above with 2 fuscous stripes; the last 3 dorsal abdominal segments each with a pair of fuscous spots; cornicles black, short; legs yellow, both ends of the tibiae, and the tarsi fuscous,

Length of body 4.2 mm.; antennae 1.5 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Abies sachalinensis*.

Nom. Jap.—*Hanenaga-ōabura*.

16. *Lachnus laricicola* n. sp.

Winged viviparous female—Body long oval, black, head reddish brown; antennae fuscous, the 2nd and 3rd joints yellowish, the 4th much shorter than the 5th, the 6th short and fusiform, anterhinal small, and the demarkation between the ante- and postrhinal indistinct, the 3rd with 10 and the followings each with one roundish sensorium; rostrum long, reaching to the abdomen, broad hastate; thorax shinining, at the anterior angles of the mesonotum reddish brown; wings hyaline, veins fulvous, media obsolete and hyaline, cubitus and stigma fuscous, stigmatic nervure short and straight; abdomen oval, cornicles short, conical, with numerous short hairs; genital plate rounded; legs fuscous, femora at the extreme bases and tibiae, except both ends, yellowish.

Length of body 2.5 mm.; exp. tegm. 9 mm.; antennae 1.5 mm.

Apterous viviparous female—Nearly the same as the winged viviparous female, except the body somewhat paler, fuscous spotted, antennae paler, rostrum longer, reaching to the 2nd abdominal segment, at the basal half

being dark fulvous, legs more elongated especially in the hind pair.

Length of body 2.6 mm.; antennae 1.5 mm.

Hab.—Hokkaido (Sapporo); Honshu (one specimen collected by Mr. TEIZO OGASAWARA at Iwate and another specimen by the author at Nikko).

F. P.—*Larix leptolepis*.

Nom. Jap.—*Karamatsu-ōabura*.

8. *Todolachnus* n. g.

Allied to *Lachnus* BURM., but differs from it in the following characters:

Body long, nearly parallel on the lateral sides; the 3rd, 4th and the subsequent joints of the antennae with numerous roundish sensoria, the 4th, 5th and 6th subequal in length, taken together somewhat longer than the 3rd; rostrum short, reaching to the 3rd coxae; wings nearly double the length of the body, ample, media obsolete, twice forked, stigmatic nervure straight, parallel to the first oblique, opening at near the apex of the stigma, stigma long, broad, at the apex acutely pointed; cornicles small, wart-like, not broader at the base; cauda none, the lower genital plate rounded.

This genus is allied also to *Nippolachnus* MATS., from which it may easily be distinguished by the presence of the twice forked media of the fore wings.

Genotype—*Todolachnus abietis* MATS.

17. *Todolachnus abietis* n. sp. (Pl. XVII, f. 7, a, b, c.)

Winged viviparous female—Body long, somewhat broader at the part of the cornicles, green; head and thorax brown, with a greenish tinge; antennae nearly one half the length of the body, pale brownish, with a greenish shade, the 3rd joint subequal to the 4th, 5th and 6th taken together, no distinct demarcation line between ante- and postrhinarial, and as a whole fusiform, the 3rd with about 50, the 4th about 15, the 5th about 15, and the 6th 4 large roundish sensoria, besides these sensoria smaller ones being visible under a high powered microscope; wings hyaline, stigma grayish, veins fulvous; abdomen

fuscous in the middle, with a longitudinal series of fuscous spots on each side; cornicles wart-like, shorter than broad; legs dark greenish brown, femora at the basal halves yellowish.

Length of body 2.3 mm.; exp. tegm. 8.5 mm.; antennae 0.9 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Abies sachalinensis*.

Nom. Jap.—*Todo-midori-ōabura*.

9. **Nippolachnus** n. g.

Allied to *Lachnus* BURM. from which it differs as follows:

Antennae robust, short, not reaching to the abdomen, the 3rd joint the longest, subequal to the 4th, 5th and 6th taken together, the 4th much shorter than the 5th, the 3rd with very large sensoria, anterhinaliar broader than the postrhinaliar, at the base rhinarium very large; rostrum short, reaching beyond the 2nd coxae; wings narrower, shorter than the double length of the body, media once forked, narrower, somewhat obsolete, at the base indistinct, stigmatic nervure opens distinctly near the base, opening in the apical one third of the stigma, stigma short, stigmatic nervure nearly parallel to the furcal of the media and arising from an angle of it near the apex; cornicles very short, broad, broader than long.

It resembles somewhat also to *Protolachnus* THEOBALD,¹⁾ but differs from it especially in having the shorter antennae and the 3rd joint of it being shorter or subequal to the subsequent joints taken together.

Genotype—*Nippolachnus piri* MATS.

18. **Nippolachnus piri** n. sp. (Pl. XVII, f. 6, a, b, c.)

Winged viviparous female—Body oblong, dark greenish brown (in alcohol), abdomen whitish gray; antennae yellowish, at the apical half infuscated, with long brownish hairs, the 3rd joint with 6, the 4th with one, the 5th with two and the 6th with one large roundish sensoria, one of which at the tip of

1) African Aphid. II, p. 145 (1615).

the 5th being the largest, oval, occupying the whole breadth of its joint; wings hyaline, with a light fulvous tinge, cubitus and stigma black, the first and 2nd obliques fulvous, media and stigmatic nervure paler and with numerous granules in a single row; abdomen at the part of the cornicles with a large roundish fuscous patch, in the middle of which brown cornicles stand; legs yellowish, tibiae at the apices and tarsi, fuscous.

Length of body 2.2 mm.; exp. tegm. 8.2 mm.; antennae 0.8 mm.

Apterous viviparous female—Body dark olivaceous (in alcohol), fusiform, broadest between the cornicles; antennae pale yellowish, the 3rd joint longer than the 4th, 5th and 6th taken together, the 5th somewhat longer and broader than the 4th, the 6th subequal to the 5th; rostrum reaching to the 3rd coxae; abdomen at the apical half with a large whitish patch, on each side of which with a fuscous tubercle, carrying a short fuscous hair; cornicles large, very short, only represented as a ring; the upper genital plate short, the lower genital plate large, both being rounded on each hind margin and running nearly in parallel, having some long hairs; legs greenish yellow, hind tibiae at the apices and the same tarsi, except bases, fuscous.

Length of body 2.1 mm.; antennae 0.7 mm.

Hab.—Honshu (collected by Mr. JIRO ADACHI at Tamba).

F. P.—*Pirus sinensis*.

Nom. Jap.—*Nashi-midori-ōabura*.

19. *Nippolachnus abietinus* n. sp.

Winged viviparous female—Body oblong, brownish in color; antennae yellowish brown, somewhat longer than the head and thorax taken together, the 3rd joint subequal to the 4th, 5th and 6th taken together, the 3rd with 6-7, the 4th and 5th each with 2 and the 6th with one large roundish sensoria, the 6th fusiform, anterhinal as broad as the postrhinal at the base; rostrum reaching a little beyond the 2nd coxae; wings hyaline, with a yellowish tinge, stigma long, brownish, veins fulvous, media and stigmatic nervure obsolete, subhyaline, the latter at the base being fuscous; abdomen oval, being

broadest at the part of the cornicles; cornicles fuscous, large, short, at the mouth parts yellowish; the lower genital plate rounded at the hind margin, legs yellowish, tibiae at the apices and tarsi, fuscous.

Length of body 2.5 mm.; exp. tegm. 9.6 mm.; antennae 1.2 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Abies sachalinensis*.

Nom. Jap.—*Todo-chairo-ōabura*.

20. *Aphis acanthopanaci* n. sp.

Apterous viviparous female—Body dark green, oval, on both ends abruptly narrowed; antennae greenish yellow, slender, much shorter than the body, with a few hairs, the 3rd joint without sensoria, much longer than the 4th, anterhinal of the 6th joint more than 3 times as long as the postrhinial; pronotal lateral tubercles large, rounded; abdomen broadly oval, cornicles very long, reaching far beyond the cauda, somewhat curved outwardly, cylindrical, near the cornicle with a small conical tubercle; cauda small, cylindrical, rounded at the apex; legs greenish yellow, tibial tips and tarsi somewhat infuscated.

Length of body 2.-2.3 mm.; antennae 1.6 mm.; cornicles 0.5-0.7 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Acanthopanax ricinifolium*.

Nom. Jap.—*Senno-abura*.

Allied somewhat to *A. sambusi* L., but in *A. acanthopanaci* antennae are much more slender and longer, cornicles also being much longer.

21. *Aphis filipendulae* n. sp.

Apterous viviparous female—Body dark greenish brown, long oval; antennae much shorter than the body, greenish yellow, at the base and apex darker; the 3rd joint much longer than the 4th; on the outerside with 2 or 3 very small sensoria, the 4th somewhat longer than the 5th, anterhinal nearly $1\frac{1}{2}$ times as long as the postrhinial; rostrum reaches beyond the 2nd

lateral tubercles of each segment of thorax and abdomen conspicuous and of a blunt conical form; abdomen oval, before the cornicles being the broadest, on the sides with some paler spots; cornicles long, towards the base broader; cauda long, broad, broader towards the base; legs pale greenish yellow, femora and tibiae at the apices as well as tarsi, fuscous.

Length of body 1.3 mm.; antennae 0.9 mm.; cornicles 0.2 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Filipendula kamtschatica*.

Nom. Jap.—*Natsuyuki-abura*.

22. *Aphis celastrii* n. sp.

Apterous viviparous female—Body oval, dark brown, with a greenish shade; antennae distinctly shorter than the body, the 3rd joint without sensoria, somewhat shorter than the 6th, anterhinalial nearly $2\frac{1}{2}$ times as long as the postrhinalial; abdomen roundish, cornicles very long, surpassing far beyond the cauda, at the base much broader; cauda large, somewhat longer than the tarsi, in the middle constricted, at the apex rounded, with some long hairs; penultimate segment with a very small tubercle on each side; legs long, greenish yellow, tibiae at the apices, tarsi and femora, infuscated.

Length of body 1.5 mm.; antennae 9 mm.; cornicles 0.25 mm.

Pupa—Nearly allied to the apterous viviparous female, but a little longer; antennae shorter, the 3rd joint subequal to the 4th, much shorter than the 6th; wing-sheath concolorous, reaching nearly to the middle of the abdomen; cornicles somewhat shorter, cauda broad-conical, nearly as long as the tarsi.

Length of body 1.7 mm.; antennae 9 mm.; cornicles 0.2 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Celastrus articulatus*.

Nom. Jap.—*Umemodoki-abura*.

23. *Aphis clerodendri* n. sp.

Winged viviparous female—Body dark green, oblong; antennae greenish

yellow, somewhat shorter than the body, anterhinarial nearly $2\frac{1}{2}$ times as long as the postrhinal, the 3rd joint on the outerside with 4 sensoria in a single row, much longer than the 4th, the 4th and 5th subequal; pronotum on each side with a small tubercle; wings hyaline, veins pale yellowish, stigma grayish, 2nd fuscous rather nearer the apex of the first; abdomen much broader than the thorax; cornicles fuscous, long, somewhat broader at the base, not reaching to the caudal apex; cauda fuscous; at the base whitish, nearly one half the length of the cornicles, large, in the middle somewhat constricted, at the apex broadly conical; legs greenish yellow, tarsi, tibial tips, as well as the larger parts of the posterior femora, infuscated.

Length of body 1.3 mm.; exp. tegm. 4.2 mm.; antennae 1.1 mm.; cornicles 0.2 mm.

Pupa—Dark green, oblong; antennae much shorter than the body, the 3rd joint nearly one half the length of the 6th, anterhinarial nearly 3 times as long as the postrhinal; pronotum on each side with a narrow tubercle; wingsheath concolorous, reaching nearly to the middle of the abdomen; cornicles moderately long, somewhat curved outwardly; cauda very broad, short and of a blunt conical form.

Length of body 1.3 mm.; antennae 0.8 mm.; cornicles 0.19 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Clerodendron trichotomum*.

Nom. Jap.—*Kusagi-abura*.

24. *Aphis colocasiae* n. sp.

Winged viviparous female—Body oblong; yellowish brown, dark brown or dark green; antennae a little shorter than the body, the 3rd joint on the outer side with a row of 5 sensoria, a little longer than the 4th, anterhinarial nearly $2\frac{1}{2}$ times as long as the postrhinal; rostrum reaches to the middle coxae; thorax often with some fuscous spots; wings long, nearly of a double length of the body, hyaline, with a pale yellowish tinge, veins fulvous, stigma gray, 2nd furcal near the apex of the first; abdomen and thorax of the same

breadth; cornicles fuscous, long, broader at the base; cauda small; legs yellow, tibiae at the apices and tarsi, fuscous.

Length of body 0.9-1.2 mm.; exp. tegm. 4.2 mm.; antennae 0.9-1.0 mm.; cornicles 0.2 mm.

Apterous viviparous female—Body yellow (in alcohol), with a greenish shade; antennae except 2 basal joints pale yellow, the 3rd subequal to the 4th and 5th taken together, anterhinarial $2\frac{1}{2}$ times as long as the postrhinarial, cornicles long, fuscous, at the base broader; cauda large, constricted near the base; legs grayish white, tibiae at the apices and tarsi, somewhat infuscated.

Length of body 0.9 mm.; antennae 0.7-0.9 mm.; cornicles 0.2 mm.

Hab.—Honshu (Tamba).

F. P.—*Colocasia antiquorum*; collected by Mr. JIRO ADACHI.

Nom. Jap.—*Imo-abura*.

25. *Aphis glycines* n. sp.

Winged viviparous female—Body dark green, oblong; head and the anterior part of the pronotum pale yellowish brown, the middle part of the mesonotum fuscous; antennae a little shorter than the body, grayish yellow, the bases of the 3rd, 4th and 5th joints pale yellow, the 3rd distinctly longer than the 4th, on the outerside with a few roundish sensoria in a single row, the 4th without sensoria, anterhinarial nearly 3 times as long as the post-rhinarial; cornicles long, at the base broad, cauda pale yellowish, small, near the base somewhat constricted; wings hyaline, vein grayish yellow, stigma grayish white, 2nd furcal rather nearer the apex of the first; legs yellow, tibiae at the apices and tarsi, fuscous.

Length of body 1.4 mm.; exp. tegm. 5.7 mm.; antennae 1.5 mm.; cornicles 0.25 mm.

Apterous viviparous female—Body dark green, oval; antennae greenish yellow, far shorter than the body, anterhinarial nearly $2\frac{1}{2}$ times as long as the postrhinarial; cornicles long, broader at the base; cauda long, yellow, nearly one half the length of the cornicles, with a few long hairs, and at the base

somewhat constricted; legs greenish yellow, tibiae at the apices and tarsi, scarcely infuscated.

Length of body 1.6 mm.; antennae 1.2 mm.; cornicles 0.2 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Glycine hispida*.

Nom. Jap.—*Daizu-abura*.

26. *Aphis kogomecola* n. sp.

Winged viviparous female—Body yellow, with a greenish shade; antennae much shorter than the body, fuscous, rough, the 3rd, 4th and 5th joints each on the outer side with a few sensoria, anterhinal more than 3 times as long as the postrhinal, the 3rd much longer than the 4th; head and the middle part of the thorax fuscous; wings hyaline, at the base ochraceous, veins and stigma grayish, 2nd furcal near the middle of the first; abdomen broadest in the middle, conically terminated, thinly pubescent; cornicles short, in the same breadth throughout, as long as the tarsi, dirty yellow in color; cauda yellow, blunt conical; legs yellow, femora and tibiae at the apices, as well as tarsi, somewhat infuscated.

Length of body 1.3 mm.; exp. tegm. 4.6 mm.; antennae 1.1 mm.; cornicles 0.10 mm.

Apterous viviparous female—Body oval, yellowish green; antennae short, less than the half length of the body, the 6th joint somewhat infuscated, anterhinal nearly $2\frac{1}{2}$ times as long as the postrhinal; rostrum at the apex fuscous, reaching beyond the middle coxae; abdomen roundish, at the apex broadly conical, on the sides with a few hairs, which becoming longer towards the apex; cornicles as those of the winged female; cauda wanting; legs grayish white, tibiae at the apices and tarsi somewhat infuscated.

Length of body 1.5 mm.; antennae 0.7 mm.; cornicles 0.10 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Spiraea thunbergii*, rolling leaves together.

Nom. Jap.—*Kogome-abura*.

In America *Aphis spiraeae* Ost.¹⁾ attacks *Spiraea salicifolia*.

27. *Aphis odorikonis* n. sp.

Winged viviparous female—Body dark green, oblong; antennae greenish yellow (except 2 basal joints), somewhat shorter than the body, the 3rd joint on the outer side with a few sensoria in a single row, shorter than the 6th, anterhinalia nearly $2\frac{1}{2}$ times as long as the postrhinalia; wings hyaline, the base and costa with a yellowish shade, veins and stigma grayish, 2nd furcal near the apex of the first; abdomen roundish, penultimate segment with a small tubercle on each side; cornicles long, at the base broader; cauda short, at the apex rounded, somewhat longer than broad; legs greenish yellow, tibiae at the apices, tarsi, as well as the posterior femora, infuscated.

Length of body 1.5 mm.; exp. tegm. 5.4 mm.; antennae 1.2 mm.; cornicles 0.25 mm.

Apterous viviparous female—Body dark green, on both ends much narrower, broadly fusiform; antennae distinctly shorter than the body, greenish yellow, the basal joint being green, the 3rd and 6th subequal, anterhinalia nearly $2\frac{1}{2}$ times as long as the postrhinalia; abdomen oval, cornicles long, at the base somewhat broader, reaching to the genital segment; cauda short, somewhat longer than broad; legs greenish yellow, tibiae at the apices, tarsi and femora, largely fuscous.

Length of body 1.8 mm.; antennae 1.2 mm.; cornicles 0.12 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Lamium album*.

Nom. Jap.—*Odoriko-abura*.

28. *Aphis polygonacea* n. sp.

Winged viviparous female—Body dark green, oblong, in the middle much constricted; antennae fulvous, scarcely shorter than the body, the first joint on the innerside with a small projection, the 3rd on the outerside with

1) O. W. Oestlund—Synopsis Aphid. Minnesota. p. 68 (1887),

a few sensoria in a single row, somewhat shorter than the 6th, anterhinarial nearly $2\frac{1}{2}$ times as long as postrhinal, the 4th subequal to the 5th; wings hyaline, with a yellowish shade, veins somewhat infuscated, stigma grayish, 2nd furcal rather nearer the apex of the first; abdomen short oval, cornicles dark green, long, scarcely dilated at the base; cauda fulvous, broad, moderately long; in the middle somewhat constricted, at the apex being rounded; legs fulvous, with a greenish shade, tibiae at the apices and tarsi, somewhat infuscated.

Length of body 1.3 mm.; exp. tegm. 5.4 mm.; antennae 1.2 mm.; cornicles 0.3 mm.

Apterous viviparous female—Body long oval, dark green; antennae greenish fulvous, the basal 2 joints infuscated, much shorter than the body, the 3rd somewhat longer than the 4th, anterhinarial nearly twice as long as the postrhinal; cornicles quite long, nearly reaching to the middle of the cauda; cauda near the middle somewhat constricted; legs greenish fulvous, tibiae at the apices and tarsi, infuscated.

Length of body 1.8 mm.; antennae 1.4 mm.; cornicles 0.25 mm.

Pupa—Nearly the same as the apterous viviparous female; anterhinarial nearly 3 times as long as the basal part of the same, wing-sheath dark greenish, reaches to the 2nd abdominal joint; cornicles shorter, at the base dilated; cauda short and broad.

Length of body 1.7 mm.; antennae 1.0 mm.; cornicles 0.25 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Polygonum* species.

Nom. Jap.—*Tade-abura*.

29. *Aphis yanagicolae* n. sp.

Winged viviparous female—Body black, long oval; antennae, rostrum, cornicles and legs yellowish; antennae a little shorter than the body, anterhinarial nearly double the length of the postrhinal, the 3rd distinctly longer than the 4th; wings hyaline, veins fulvous, stigma grayish, 2nd furcal

near the apex of the first; abdomen oval, cornicles long, reaching scarcely beyond the caudal apex, at the base broader; cauda blunt, at the apex abruptly conical; legs yellow, tibiae at the apices and tarsi, fuscous.

Length of body 1.5 mm.; exp. tegm. 5 mm.; antennae 1.2 mm.; cornicles 0.27 mm.

Apterous viviparous female—Body oval, dark green, on the sides greenish yellow; antennae yellow, far shorter than the body, each joint infuscated at the apex; thorax and abdomen with some reticulated darker markings; abdomen short, cornicles long, greenish yellow, more than one half the length of the abdomen, cauda fuscous, longer than broad, conical, in the middle somewhat constricted.

Length of body 1.5–1.8 mm.; antennae 1.1 mm.; cornicles 0.5 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Salix caprea*.

Nom. Jap.—*Yanagi-abura*.

Allied somewhat to European *A. saliceti* KALT.¹⁰

30. *Hyalopterus abietinus* n. sp.

Winged viviparous female—Body oblong, dark greenish brown, covered with white waxy powder; head black; antennae brownish, the first 2 joints black, the 3rd yellowish at the base, subequal to the 4th, with many minute sensoria over the whole surface, the 4th with the sensoria only on the outer-side, the 5th much shorter than the 4th, anterhinal nearly 4 times as long as the posthinal; wings hyaline, veins nearly colorless, somewhat fulvous at the margin, 2nd furcal near the middle of the first, 3 obliques not reaching entirely to the cubitus, stigma grayish; abdomen narrower than the thorax; cornicles very short, somewhat longer than broad; cauda longer and broader than the cornicles; legs slender, yellowish, tibiae, femora at the apices and tarsi, fuscous, the hind femora, except the bases, largely fuscous.

Length of body 1.8 mm.; exp. tegm. 7 mm.; antennae 1.7 mm.

10) Kaltenbach—Monographie der Familie Pflanzenläuse p. 103 (1843).

Hab.—Hokkaido (Sapporo).

F. P.—*Abies sachalinensis*.

Nom. Jap.—*Todo-kofuki-abura*.

10. **Yezabura** n. g.

Allied to *Hyaloptera* Koch, from which differs as follows:—

Frontal tubercles distinct, especially in the pupa; antennae rough, the first joint at the apex with a small sensorium, the 3rd and the following joints with many sensoria, in the winged viviparous female it is longer than the body, the 6th joint longest, and of a very slender form; pronotum on each side with a very small tubercle; wings broad and long, veins robust, first-oblique nearly in right angles to the cubitus, second-oblique and media somewhat oblique and nearly in parallel to the first-oblique; cornicles moderately long, cylindrical, somewhat curved, at the mouth somewhat funnel-shaped; cauda small, with some curved hairs.

Genotype—*Yezabura sasae* MATS.

31. **Yezabura sasae** n. sp. (Pl. XVI, f. 5, a, b, c.)

Winged viviparous female—Body brown, with cottony secretions, head fuscous, oblong, in the middle somewhat constricted; antennae longer or as long as the body, anterhinal nearly 3 times as long as the postrhinal; rostrum short, scarcely reaching to the second coxae; mesonotum at the anterior margin on the sides somewhat infuscated; wings hyaline, veins fuscous, at the sides infuscated, stigma grayish, 2nd furcal nearly in the middle of the first, stigmatic nervure much curved; abdomen oval, on the sides with inconspicuous brownish spots; cornicles short, slender, cylindrical; cauda broad, roundish, constricted at the base; legs slender, yellowish, tibiae and tarsi paler.

Length of body 1.5 mm.; exp. tegm. 4.8 mm.; antennae 1.4 mm.; cornicles 0.12 mm.

Pupa—Body dark brown, with a purple shade; antennae much shorter

than the body, grayish, the first joint and the base of the 6th, infuscated; wing-sheath brown; cornicles short, cauda broad, grayish; legs grayish, robust.

Length of body 1.2 mm.; antennae 1 mm.; cornicles .12 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Sasa paniculata*.

Nom. Jap.—*Sasa-kuromiyaku-abura*.

32. *Macrosiphum malvicola* n. sp.

Winged viviparous female—Body oblong, fulvous, mesonotum and a quadrate spot of the abdomen, fuscous; antennae much longer than the body, except the first 2 joints and base of the 3rd, fuscous, the 3rd much longer than the 4th, the 5th somewhat longer than the 4th, each with numerous sensoria, anterhinalia somewhat 9 times as long as the postrhinalia; wings hyaline, veins brownish, stigma grayish, 2nd furcal near the middle of the first; cornicles long, slender, cylindrical, somewhat surpassing the cauda; cauda conical, broad at the base; legs fulvous, femora at the apices and tibiae, infuscated.

Length of body 2.-2.5 mm.; exp. tegm. 8 mm.; antennae 3. mm.; cornicles 0.5 mm.

Apterous viviparous female—Body yellow or yellowish green, spindle-shaped; antennae much longer than the body, the 3rd joint except the base somewhat infuscated, on the outer side with 2 sensoria near the base, distinctly longer than the 4th or 5th, anterhinalia nearly 6 times as long as the postrhinalia; cornicles long, broader at the base, greenish, at the apex infuscated; cauda broad-conical, nearly one half the length of the cornicles; legs greenish yellow, femora at the apices, tibiae on both ends and tarsi, infuscated.

Length of body 2.4 mm.; antennae 3 mm.; cornicles 0.5 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Syringa amurensis* and *Malva rotundifolia*.

Nom. Jap.—*Aoi-higenaga-abura*.

It differs from *M. malvae* MOSELEY in having much more sensoria in the

3rd, 4th and 6th joints of the antennae.

33. **Macrosiphum kuricola** n. sp.

Apterous viviparous female—Body fusiform, dark brown, shining, on the sides paler, with some greenish tinge; antennae somewhat longer than the body, with a few short hairs, the 3rd joint on the outerside near the base with about 5 sensoria in a single row, much longer than the 4th, the 5th much shorter than the 4th, anterhinarial nearly 6 times as long as the postrhinarial; cornicles long, cylindrical, towards the base broader; cauda fulvous, broad, long, conical, nearly two thirds the length of the cornicles; legs fulvous, apical halves of the femora, apices of the tibiae, as well as the tarsi, fuscous, the middle tibiae distinctiy curved near the apices, with some rigid grayish hairs.

Length of body 2.8 mm. (excl. cauda); antennae 3.6 mm.; cornicles 0.6 mm.

Hab.—Hokkaido, Shikoku (Iyo).

F. P.—*Castanea crenata*, *Quercus grosserrata*.

Nom. Jap.—*Kuri-higenaga-abura*.

34. **Macrosiphum petasitis** n. sp.

Winged viviparous female—Body oblong, brown, with a greenish shade; antennae fuscous, much longer than the body, the 3rd joint at the base, the 4th and 5th entirely, pale yellow, the 3rd much longer than the 4th, with numerous sensoria, the 4th subequal to the 5th, anterhinarial nearly 7 times as long as the postrhinarial; frontal margin deeply excavated; wings hyaline, veins and stigma pale fulvous, 2nd furcal near the apex of the wing; abdomen oval; cornicles very long, somewhat curved, at the base dilated, concolorous with the body; cauda pale yellow, nearly one third the length of the cornicles, long conical, with some long hairs; legs yellowish, femora at the apices, tibiae on both ends and tarsi, infuscated.

Length of body 2.5 mm. (except cauda); exp. tegm. 8.2 mm.; cornicles 1.0 mm.; cauda 0.3 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Petasites japonica*.

Nom. Jap.—*Fuki-higenaga-abura*.

I got also one of this species from Mr. JIRO ADACHI, collected on *Cosmos bipennata* at Osaka. Somewhat allied to *M. yomogicola*, from which may easily be distinguishable by the much longer cornicles and shorter cauda.

35. **Macrosiphum gobonis** n. sp.

Winged viviparous female—Body oblong; dark brown, with a greenish tinge; antennae much longer than the body, fuscous, basal part of the 3rd and the 6th entirely paler, frontal tubercles broad, subequal to the first joint, the 3rd joint on the outerside with numerous sensoria and on the innerside with a few rigid hairs, at the base paler, scarcely shorter than the 4th and 5th taken together, anterhinaliar nearly 8 times as long as the postrhinaliar; cornicles very long, cylindrical, slightly curved; cauda greenish yellow, long, conical; wings hyaline, with a yellowish tinge, veins and stigma pale fulvous, 2nd furcal near the apex of the wing; legs black, femora at the bases and tibiae, except both ends, yellowish.

Length of body 2-2.3 mm.; exp. tegm. 8.5 mm.; antennae 3.7 mm.; cornicles 1 mm.

Apterous viviparous female—Nearly allied to the winged viviparous female, but the body distinctly larger and broader, frontal tubercles somewhat longer than the first joint, the 3rd joint with much less sensoria, and much shorter than the 4th and 5th taken together, anterhinaliar nearly 6 times as long as the postrhinaliar.

Length of body 2.8-3 mm.; antennae 3.7 mm.; cornicles 1 mm.

Pupa—Differs from the apterous viviparous female as follows:—

Body smaller; antennae dark fulvous, frontal tubercles and the first 2 joint fuscous, the 3rd joint wanting sensoria; wing-sheath reaching nearly to the middle of the abdomen; cornicles at the bases broader, cauda smaller; legs robuster, only the femora at the apices infuscated.

Length of body 1.5 mm.; antennae 2.6 mm.; cornicles 0.7 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Arctium lappa*.

Nom. Jap.—*Gobo-higenaga-abura*.

It is allied somewhat to *M. yomogicola* MATS., but it differs in having numerous minute sensoria in the 3rd antennal joint, and much longer cornicles.

36. **Macrosiphum sonchicola** n. sp.

Apterous viviparous female—Body oblong, castaneous brown; antennae much longer than the body, the 3rd joint at the apex, the 4th, 5th and the postrhinal each on both ends, fuscous, nearly without sensoria, the 3rd, 4th and 5th subequal, anterhinal nearly 7 times as long as the postrhinal; cornicles very long, at the apex infuscated and funnel-shaped, at the base broader; cauda short, broadly conical; legs robust, yellowish brown, tibiae at the apices infuscated

Length of body 2.1 mm.; antennae 3 mm.; cornicles 0.6 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Sonchus arvensis*.

Nom. Jap.—*Hachijona-higenaga-abura*.

It differs from *M. sonchi* L. in not having distinct sensoria.

37. **Macrosiphum hagicola** n. sp.

Winged viviparous male—Body yellow, oblong; antennae black, much longer than the body, frontal tubercles and the first 2 joints fulvous, the 4th and 5th subequal, the 3rd somewhat longer, the latter on the outerside with a few series of sensoria; anterhinal somewhat 5 times as long as the postrhinal; compound eyes red; wings hyaline, veins fuscous, costa and cubitus yellowish, stigma grayish, 2nd furcal nearly in the middle of the first; cornicles cylindrical, long, black, far surpassing the cauda, at the base grayish; cauda long, gradually pointed towards the apex, nearly one half the length of the cornicles; legs very long, yellow in color, femora at the apices, tibiae

(except the bases and middle parts) and tarsi, black.

Length of body 1.2 mm.; exp. tegm. 6.5 mm.; antennae 4.2 mm.; cornicles 0.4 mm.

Apterous viviparous female—Body nearly allied to the winged viviparous female, but larger, oval, the 3rd joint of the antennae wanting sensoria, distinctly longer than the 4th, the 5th somewhat shorter than the 4th; cauda longer than the half length of the cornicles, the latter not surpassing the cauda.

Length of body 2.5-3 mm.; antennae 4.5 mm.; cornicles 0.7 mm.

Pupa—Nearly allied to the apterous viviparous female, but smaller; antennae shorter, yellow, the 3rd joint subequal to the 4th and 5th taken together, fuscous, wing-sheath grayish.

Length of body 2 mm.; antennae 3.5 mm.; cornicles 0.4 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Lespedeza bicolor*.

Nom. Jap.—*Hagi-higenaga-abura*.

38. *Macrosiphum ibarae* n. sp.

Winged viviparous female—Body oblong, pale brownish, meso- and metanotum dark brown; antennae much longer than the body, frontal tubercles short, only one third the length of the first joint, the 3rd joint on the outer-side with numerous sensoria, distinctly longer than the 4th, the 4th and 5th on the outer-side with a few sensoria, anterhinalia somewhat 10 times as long as the postrhinalia; wings long and large, stigma and veins pale yellowish, 2nd furcal near the middle of the first; abdomen on the lateral margins each with a double row of fuscous spots, fuscous eyes of the larvae being visible through the dorsal skin; cornicles brownish, with a greenish tinge, broadest a little before the bases; cauda pale yellowish, broadly conical, nearly one third the length of the cornicles; legs fulvous, apical halves of the femora, apices of the tibiae, as well as the whole part of the tarsi, fuscous.

Length of body 2.2 mm; exp. tegm. 10 mm.; antennae 3.5 mm.; cornicles 0.5 mm.

Apterous viviparous female—Body yellowish brown, nearly flask-shaped; antennae somewhat longer than the first joint, the 3rd, 4th and 5th on each apex and the 6th, infuscated, anterhinarial somewhat 8 times as long as the postrhinal; abdomen broadest a little behind the middle; cornicles brownish, at the bases darker and broader; cauda pale yellow, near the apex suddenly pointed; legs concolorous with the body, apices of the femora and tibiae, as well as the whole part of the tarsi, fuscous.

Length of body 1.7 mm.; antennae 2 mm.; cornicles 0.3 mm.

Hab.—Honshu (Tamba).

F. P.—*Rosa multiflora*; collected by Mr. JIRO ADACHI.

Nom. Jap.—*Ibara-higenaga-abura*.

It differs from *M. rosae* L. in having numerous sensoria only on the outerside of the 3rd antennal joint.

39. **Macrosiphum** (*Macrosiphoniella*) **chrysanthemi** DEL GUER.,

Redia VII, p. 332, f. 30 (1911).

Winged viviparous female—Body brown, oblong; antennae fulvous, somewhat longer than the body, frontal tubercles and the first-2 joints fuscous, the 3rd at the basal half yellow, anterhinarial nearly 5 times as long as the postrhinal; the 3rd much longer than the 4th, the 4th subequal to the 5th; frontal margin of the head deeply excavated, frontal tubercles subequal to the first antennal joint; mesonotum at the anterior margin yellowish; wings hyaline, with a yellowish shade, veins and stigma pale fulvous, second furcal near the apex of the wing; abdomen at the apex conical, with long conical cauda, which being constricted somewhat near the base; cornicles somewhat longer than the cauda, at the bases dilated, with the cauda, fuscous; legs yellowish, coxae, tips of the femora, both ends of the tibiae, as well as the whole part of the tarsi, fuscous.

Length of body 2.4 mm.; exp. tegm. 6 mm.; antennae 2.5 mm., cornicles 0.25 mm.

Apterous viviparous female—Nearly allied to the winged viviparous female, except the body somewhat shorter and broader and being deeper colored.

Length of body 2.1 mm.; antennae 2.3 mm.; cornicles 0.25 mm.

Hab.—Hokkaido (Sapporo), Honshu; Europe, Africa.

F. P.—*Chrysanthemum sinense* and other various allied species.

Nom. Jap.—*Kiku-higenagu-aburū*.

Somewhat allied to the European *M. solidaginis* F., but in this species cornicles are much shorter and dilated at the bases; it resembles also somewhat to the North American *M. chrysanthemi* OEST., but in the latter species antennae are entirely black and cornicles very long, measuring about 0.5 mm.

40. *Macrosiphum mumecola* n. sp.

Winged viviparous female—Body oval, yellowish brown, head and thorax fuscous; antennae fuscous, distinctly longer than the body, frontal tubercles somewhat shorter than the first joint, the 3rd somewhat longer than the 4th, both the 3rd and 4th with a few small sensoria on the outerside in a single row, the 4th nearly as long as the 5th and the postrhinarial taken together, anterhinarial nearly 3 times as long as the postrhinarial; wings hyaline, with a slight shade of yellow, veins brownish, cubitus yellow, stigma grayish yellow, 2nd furcal rather nearer the apex of the first, media at the base obsolete; abdomen in the middle with a large fuscous spot, on the lateral sides obscurely fuscous spotted; cornicles long, fuscous; scarcely broader at the bases; cauda pale yellowish, short, narrowly conical; legs yellowish, tibiae and femora at the apices and tarsi, fuscous, the hind femur, except the base, being fuscous.

Length of body 1.5 mm.; exp. tegm. 6 mm.; antennae 1.9 mm.; cornicles 0.3 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Prunus mume*.

Nom. Jap.—*Mume-higenaga-abura*.

Somewhat allied to *M. malvicola* MATS., from which it may differ especially in having the fuscous cornicles and much less sensoria in the antennae.

41. **Macrosiphum primulana** n. sp.

Winged viviparous female—Body greenish yellow, broad-fusiform, head and mesonotum fuscous; antennae distinctly longer than the body, fuscous, the 3rd at the base yellowish, on the outer side with a series of sensoria nearly in a single row, distinctly longer than the 4th, the 4th being much longer than the 5th, anterhinaliar nearly 5 times as long as the posthinaliar; wings hyaline, stigma and veins fulvous, 2nd furcal near the middle of the first; each abdominal segment with a fuscous band, which being often united together, on the lateral sides with a series of black spots; cornicles fuscous, scarcely broader at the base; cauda fuscous, nearly on third the length of the cornicles; legs yellowish, apical halves of the femora, apices of the tibiae and the whole part of the tarsi, fuscous.

Length of body 2.3 mm.; exp. tegm. 8.3 mm.; antennae 2.5 mm.; cornicles 0.3 mm.

Apterous viviparous female—Nearly allied to the winged viviparous female, but the antennae much longer than the body, paler, the 3rd, 4th and 5th joints on each apex infuscated, wanting sensoria; meso- and metanotum, as well as the abdominal segments each, with a fuscous band, which being interrupted in the middle; cornicles and cauda paler.

Length of body 1.5 mm.; antennae 2 mm.; cornicles 0.25 mm.

Pupa—Nearly allied to the apterous viviparous female, except the fuscous bands to the thorax and abdomen being indistinct, wing-sheath being concolorous with the body.

Length of body 1.7 mm.; antennae 2 mm.; cornicles 0.22 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Primula sinensis*.

Nom. Jap.—*Sakuraso-higenaga-abura*.

It is closely allied to *M. primulae* THEOBALD, (Journ. Econ. Biol. Vol. VIII, p. 91, f. 28, 29, 1913), from which it differs in having only one series of sensoria nearly in a single row.

42. *Macrosiphum senecionis* n. sp.

Apterous viviparous female—Body fulvous, oval; antennae much longer than the body, frontal tubercles on the innerside gibbous, the 3rd joint distinctly longer than the 4th, wanting distinct sensoria, the 3rd, 4th and 5th at the apices and the 6th, except the base, fuscous, anterhinal nearly 7 times as long as the postrhinal; abdomen without any marking, except the crimson-red eyes of the larvae, which being visible through the dorsal skin; cornicles paler, long, towards the bases broader, at the apices fuscous; cauda whitish, conical, with three indistinct constrictions, somewhat shorter than the half length of the cornicles; legs slender, long, apices of the femora and tibiae, as well as the whole part of the tarsi, fuscous.

Length of body 1.5-1.8 mm.; antennae 3-3.5 mm.; cornicles 0.6 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Senecio palmatus*.

Nom. Jap.—*Nanatsuba-higenaga-abura*.

43. *Macrosiphum yomogicola* n. sp.

Winged viviparous female—Body dark brown, with a greenish shade, broad-fusiform; antennae much longer than the body, with a few long hairs, the 3rd joint with a few sensoria, somewhat longer than the 4th, at the base being yellowish, the 5th somewhat shorter than the 4th, anterhinal nearly 4 times as long as the postrhinal; frontal margin shallowly excavated, with a few hairs, frontal tubercles somewhat shorter than the first antennal joint; pronotum paler; abdomen oval; cornicles relatively short, broader at the bases, nearly as long as the cauda; cauda narrowly conical, with some long hairs; wings large, hyaline, with a fulvous tinge, veins fulvous, stigma

grayish, second furcal about in the middle of the first; legs long, fuscous, femora at the bases yellowish.

Length of body 2-2.6 mm.; exp. tegm. 6-6.5 mm.; antennae 3-3.5 mm.; cornicles 0.25 mm.

Apterous viviparous female—Nearly allied to the winged viviparous female, except the body somewhat broader in the middle and the cauda much broader than the cornicles.

Length of body 1.9-2.2 mm. (except cauda); antennae 3-3.2 mm.; cornicles 0.25 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Artemisia vulgaris*.

Nom. Jap.—*Yomogi-higenaga-abura*.

Somewhat allied to the European *M. artemisiae* BOYER (nec KOCH), but our species differs from it in having much shorter cornicles and the abdomen wanting any marking.

44. *Myzus momonis* n. sp.

Winged viviparous female—Body oblong, pale yellowish brown, with a greenish tinge, thorax fuscous; antennae fulvous, anterhinal nearly $3\frac{1}{2}$ times as long as the postrhinal, the 3rd subequal to the 6th, with numerous roundish sensoria; the frontal tubercles on the inner side not gibbous, much shorter than the first antennal joint; wing hyaline, veins fuscous, at the base yellowish; stigma concolorous, at the margin grayish, 2nd furcal near the middle of the first; abdomen at the base constricted, in the middle broadest, cornicles yellow, short, at the base broader; cauda short, broad, conical, yellowish; legs pale fulvous, femora, tibial tips and tarsi, somewhat infuscated.

Length of body 2 mm.; exp. tegm. 5.2 mm.; antennae 1 mm.; cornicles 0.2 mm.

Apterous viviparous female—Body oval, yellowish brown to dark brown, with a greenish tinge; antennae much shorter than the body, anterhinal nearly twice as long as the postrhinal, without any sensorium, except the

rhinarium at the apex of the postrhinal; the frontal tubercles somewhat shorter than the first antennal joint, on the inner side somewhat gibbous, the 3rd subequal to the 6th; head and cross-bands of the pro- and mesonotum somewhat infuscated; abdomen globose, cornicles short, infuscated, cauda short and conical; genital plate somewhat infuscated; legs pale ochraceous.

Length of body 2 mm.; antennae 1.7 mm.; cornicles 0.18 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Prunus persica*.

Nom. Jap.—*Momo-kobu-abura*.

45. *Myzus sakurae* n. sp.

Apterous viviparous female—Much resembles to *M. momonii* MATS., from which it differs as follows:—

Body yellowish green or dark green; antennae greenish yellow, anterhinal nearly 3 times as long as the postrhinal, with 3 or 4 rhinaria at the apex of the postrhinal, the 6th joint at the base and apex somewhat infuscated; thorax and abdomen uneven; cornicles much longer, cauda distinctly longer, more pointed conical; legs yellow, with a greenish tinge.

Length of body 1.0 mm.; antennae 1.0 mm.; cornicles 0.12 mm.

Pupa—Yellowish brown to dark brown, oblong; antennae broad, the first joint large and globose, longer than the frontal tubercle; wing-sheath reaches nearly to the middle of the abdomen, concolorous with the abdomen; cornicles surpassing the caudal apex, somewhat curved inwardly, cauda inconspicuous; the rest characters are similar to those of the apterous female.

Length of body 1.7 mm.; antennae 1 mm.; cornicles 0.12 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Prunus sachalinensis*, causing a monstrous abnormal growth on the under surface of the leaves.

Nom. Jap.—*Sakura-kobu-abura*.

This species has very little resemblance to European *M. cerasi* F., which being entirely black.

46. *Myzus sasakii* n. sp.

Aphis sp.? Sasaki—Nippon-Jumoku-Gaichu-Hen Vol. II, p. 132 f.
138 (1902).

Winged viviparous female (migrants)—Body long oval, olivaceous yellow, mesonotum greenish brown; antennae rough, distinctly shorter than the body, on the inner side of the first joint gibbously projected, the 2nd globular, the 3rd subequal to the 4th and 5th combined, the 6th the longest, anterhinalia nearly $1/2$ the length and $1/2$ the breadth of the postrhinalia, the 3rd with about 28, the 4th with 9, the 5th with 5 roundish sensoria; fore wings nearly twice the length of the body, hyaline, with a light fulvous tinge, veins fulvous, stigma pale grayish, the 2nd furcal rather nearer the apex of the first; abdomen broader than the thorax, at the apex strongly attenuated; cornicles moderately long, imbricated, broader towards the bases, as broad as the posterior femora; cauda broadly conical, nearly twice as broad as the cornicles; legs pale fulvous, femora at the apices deeper in color.

Length of body 1.6 mm.; exp. tegm. 5.6 mm.; antennae 1.2 mm.

Nymph—Differs from the winged females as follows:

The antennal tubercles on the inner side gibbously projected and short pubescent, all the joints lacking sensoria; the wing-sheath reaches to the 2nd abdominal segment; cornicles somewhat shorter; cauda indistinct.

Length of body 1.4 mm.; antennae 0.9 mm.

Hab.—Honshu (Tokyo).

F. P.—*Prunus donarium*; collected by Prof. CHUJIRO SASAKI and kindly sent to me for identification.

Nom. Jap.—*Sakura-fushi-abura*.

Gall—Large, bag-shaped, somewhat compressed, brownish in color, with short petiole, made on the upper surface of the leaf; when the gall matures an exit is made on the under surface of the leaf, from which the alated female flies off.

It is a common fact that the species belonging to this genus sometimes produce pseudogalls, but this insect builds nearly a true gall. I have ex-

examined it closely under the microscope, but did not find any other character than those of *Myzus* PASS.

47. *Phorodon asacola* n. sp.

Winged viviparous female—Body oblong, green or greenish yellow; antennae somewhat shorter than the body, brown, frontal tubercles on the inner side with a long narrow tooth, carrying 2 capitate hairs, the first joint on the inner side also with a long, blunt tooth, carrying some capitate hairs, anter-rhinial nearly 4 times as long as the post-rhinial, the 3rd joint shorter than the 6th; head and pronotum pale yellow, with 3 large brownish spots on the mesonotum; wings hyaline, veins ochraceous, stigma grayish white, 2nd furcal near the middle of the first; abdomen oval, cornicles very long, reaching nearly to the middle of the cauda, cylindrical, near the apex scarcely dilated; cauda conical, about 1/6 the length of the cornicles; legs yellow, tibiae at the apices and tarsi, fuscous.

Length of body 2 mm.; exp. tegm. 5.4 mm.; antennae 1.6 mm.; cornicles 0.4 mm.

Apterous viviparous female—Body oblong, green or greenish yellow; antennae yellow, the 5th at the apex and 6th, fuscous; antennal teeth on the inner side at the base and other characters nearly the same as those of the winged female; cornicles much longer, narrower at the apices; cauda broad, conical, with the cornicles pale yellowish.

Length of body 2.2-2.5 mm.; antennae 1.2 mm.; cornicles 0.7 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Cannabis sativa*.

Nom. Jap.—*Asa-ibo-abura*.

10. *Arimakia* n. g.

Allied to *Aphis* L., from which it may differ as follows:

Body with long hairs; frontal tubercles distinct; antennae robust, the 6th joint much longer than the 3rd; cornicles small, short, subequal to the

cauda, broader at the base, constricted near the mouth, cauda broad; hind tibiae much robuster and longer than the preceeding pair, with long hairs, especially on the outsides; stigmatic nervure of the wing originates near at the middle of the stigma.

Genotype—*Arimakia araliae* MATS.

This resembles also *Myzus* Pass, but differs from it in having broad and long hind legs and very short cornicles.

48. *Arimakia araliae* n. sp. (Pl. XVII, f. 3, a, b, c.)

Winged viviparous female—Body dark green, oblong, in the middle constricted; antennae, head, and mesonotum in the middle, fuscous; antennae with long hairs, distinctly shorter than the body, the 3rd and 4th joints at the bases paler, the 3rd on the outsides with a few sensoria, much longer than the 4th, anterhinal nearly $3\frac{1}{2}$ times as long as the postrhinal; wings hyaline, veins pale fulvous, stigma grayish, 2nd furcal near the middle of the first; abdomen oval, cornicles small, fuscous, cauda broader than the cornicles, at the base somewhat constricted; legs yellowish brown, tibiae at the apices, tarsi and femora, largely infuscated.

Length of body 2.2 mm.; exp. tegm. 6.7 mm.; antennae 1.4 mm.; cornicles 0.15 mm.

Apterous viviparous—Body dark brown, oval; antennae much shorter than the body, the 3rd joint much longer than the 4th, the 4th subequal to the 5th, anterhinal nearly 3 times as long as the postrhinal, with long hairs; cornicles very small, at the bases broader; cauda large, cylindrical, in the middle constricted, at the apex rounded; legs yellowish brown, tibiae at the apices, tarsi and femora, largely infuscated, hind tibiae (about 1. mm. long) nearly $1\frac{1}{2}$ the length of the middle tibiae, gradually curved towards the tips.

Length of body 2.3 mm.; antennae 1.5 mm.; cornicles 0.1 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Aralia cordata*, *Rhus vernicifera*.

Nom. Jap.—*Udo-abura*.

49. *Arimakia taranbonis* n. sp.

Apterous viviparous female—Nearly allied to *A. araliae* MATS., from which it differs as follows:

Body dark green, smaller, nearly globular; antennae shorter, the 3rd joint somewhat longer than the 4th, anterhinaliarial nearly $3\frac{1}{2}$ times as long as the postrhinaliarial, with much less hairs; cornicles yellowish, broader, cauda broadly conical, at the base yellowish; legs yellowish, hind tibiae distinctly shorter, (about 0.7 mm) and scarcely curved towards the tips.

Length of body 1.8 mm.; antennae 1 mm.; cornicles 0.1 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Aralia sinensis*.

Nom. Jap.—*Taranbo-abura*.

12. *Abura* n. g.

Allied to *Arimakia* MATS.; from which it differs as follows:—

Body pear-shaped, at the caudal margin somewhat abruptly truncated; antennae scarcely longer than the body, frontal tubercles distinct but not gibbous, a little shorter than the first joint, the 2nd at the inner margin somewhat gibbous, the 6th much longer than the 3rd; thoracic tubercles very small, inconspicuous; rostrum reaches beyond the 2nd coxae; cornicles much longer, somewhat curved outwardly, at the base broader; cauda large, much broader than the cornicles, cylindrical, at the apex broadly rounded; legs robust, the hind legs longer, long pubescent on the outer sides, but less than those of *Arimakia*.

Genotype—*Abura momocola* MATS.

50. *Abura momocola* n. sp.

Apterous viviparous female—Body dark fuscous, on the lateral margin somewhat paler (in alcohol); antennae scarcely shorter than the body, frontal

tubercles and the first 2 joints fuscous, the 5th far shorter than the 4th, the 6th fuscous, anterhinalia nearly 6 times as long as the postrhinalia; rostrum fulvous, at the extreme apex scarcely infuscated; abdomen broadest at the hinder part, cornicles and cauda fuscous, the latter having long hairs; legs fulvous, tibiae at the apices, tarsi and femora largely, fuscous, with long hairs, especially on the hind legs

Length of body 1.8 mm.; antennae 1.6 mm.; cornicles 0.3 mm.

Hab.—Honshu (Tamba).

F. P.—*Prunus persica*; collected by Mr. JIRO ADACHI.

Nom. Jap.—*Momo-kenaga-koabura*.

51. *Siphocoryne fraxinicola* n. sp.

Winged viviparous female—Body oblong, dark green; antennae somewhat shorter than the body, frontal tubercles indistinct, much shorter than the first joint, the 3rd joint somewhat shorter than the 4th and 5th taken together, with many sensoria, the 4th with sensoria only on the outerside, anterhinalia somewhat 5 times as long as the postrhinalia; wings hyaline, veins fulvous, stigma grayish, 2nd furcal near the apex of the first; cornicles greenish fulvous, near the apices dilated, towards the bases narrower; cauda small, as long as wide; legs yellowish green, femora, except the bases, tibiae at the apices and the whole part of the tarsi, fuscous.

Length of body 1.8 mm.; exp. tegm. 7.5 mm.; antennae 1.5 mm.; cornicles 0.25 mm.

Larvae—Yellowish green, oblong; antennae much shorter than the body, with 5 joints, the 3rd as long as the anterhinalia; cornicles short, in the middle somewhat dilated; cauda inconspicuous; legs concolorous with the body.

Hab.—Hokkaido (Sapporo).

F. P.—*Fraxinus longicuspis*.

Nom. Jap.—*Aodamo-kubire-abura*.

It resembles somewhat the European *S. xylostei* SCHR., from which it differs in having the greenish fulvous cornicles.

52. *Siphocoryne acericola* n. sp.

Winged viviparous female—Body oblong, fulvous, with a greenish tinge (in alcohol), mesonotum black; antennae wanting hairs, shorter than the body, fuscous, the base of the 3rd joint yellowish, the 3rd joint subequal to the 4th and 5th taken together, with numerous sensoria, anterhinarial nearly 7 times as long as the postrhinal; wings nearly twice as long as the body, hyaline, costa and veins pale yellowish brown, stigma grayish, 2nd furcal near the apex of the first; abdomen on the lateral sides fuscous spotted; cornicles moderately long, near the apices dilated; cauda small, nearly 3 times as long as broad; legs pale yellowish, femora, except the bases, tibiae at the apices and tarsi, fuscous.

Length of body 1.8 mm.; exp. tegm. 7 mm.; antennae 1.5 mm.; cornicles 0.25 mm.; cauda 0.12 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Acer palmatum*.

Nom. Jap.—*Momiji-kubire-abura*.

It resembles closely *S. fraxinicola* MATS., from which it may easily be distinguished by its much more enlarged cornicles.

53. *Melanoxanthus vignae* n. sp.

Winged viviparous female—Body oblong, greenish yellow, meso- and metanotum brownish; antennae much shorter than the body, the 3rd joint broadest in the middle, uneven, with numerous oval sensoria, somewhat longer than the 4th and 5th taken together, anterhinarial nearly $1\frac{1}{2}$ times as long as the postrhinal; rostrum long, reaching somewhat beyond the 3rd coxae; wings hyaline, scarcely yellowish tinted, veins pale fulvous, stigma on the hind margin grayish, 2nd furcal near the middle of the first; cornicles short, near the middle distinctly dilated; cauda blunt-conical, with the cornicles pale yellowish; legs pale yellow, apices of the tibiae scarcely infuscated.

Length of body 1.5 mm.; exp. tegm. 5.6 mm.; antennae 0.8 mm.; cornicles 0.22 mm.

Pupa—Differs from the winged viviparous female in the following points:—

Antennae shorter, the 3rd joint without sensoria, anterhinalia nearly as long as the postrhinalia; wing-sheath greenish; cornicles short, scarcely broader in the middle, towards the apices narrowed; cauda smaller.

Length of body 1.5 mm.; antennae 0.6 mm.; cornicles 0.2 mm.

Hab.—Honshu (Tamba).

F. P.—*Vigna sinensis*, collected by Mr. JIRO ADACHI.

Nom. Jap.—*Sasage-tsubo-abura*.

13. **Nipposiphum** n. g.

Winged viviparous female much allied to *Siphocoryne* PASS., but it differs much in the apterous viviparous female.

Anterhinalia scarcely longer and somewhat narrower than the postrhinalia; rostrum longer, reaching to the 2nd coxae; cornicles short, much dilated in the middle and curved outwardly; cauda small, much longer than broad; lower genital plate of the apterous female very long, nearly twice as long as the cauda, conical, being much the broadest at the base; the rest of the characters nearly the same as in *Siphocoryne*.

Genotype—*Nipposiphum salicicola* MATS.

It is quite peculiar that the lower genital plate of the apterous female of this genus is much longer than the cauda and is narrowly and conically produced. Normally the lower genital plate of the typical Aphidinae is always broad and rounded, while in the subfamily *Callipterinae* the lower genital plate is either bilobed or truncated or rounded and not produced conically. Empodial hairs of this genus are simple and not capitated as those of *Callipterinae*. As to the other characters, however, it much resembles *Siphocoryne* KOCH., so I have placed this genus temporarily in the subfamily *Aphidinae*.

54. **Nipposiphum salicicola** n. sp. (Pl. XVI, f. 4, a, b, c.)

Winged viviparous female—Body oblong, fulvous (in alcohol), with a

grayish tinge, mesonotum in the middle brownish; antennae much shorter than the body, the 3rd joint subequal to the 4th and 5th taken together, with numerous roundish sensoria, wanting hairs, the 5th subequal to the post-rhinal, anterhinal somewhat shorter than the post-rhinal; rostrum reaching to the 2nd coxae; wings hyaline, with a pale fulvous tinge, cubitus and veins fulvous, stigma grayish white, on the hind part being grayish, 2nd furcal nearly at the two thirds part of the first near the apex; cornicles short, in the middle broadly dilated, somewhat broader at the apices than at the bases; cauda somewhat shorter than the cornicles, at the base broader, at the apex rounded; legs concolored with the body, tibiae at the apices and tarsi, infuscated.

Length of body 1.7 mm.; exp. tegm. 6 mm.; antennae 1.2 mm.; cauda 0.15 mm.; lower genital plate 0.2 mm.

Apterous viviparous female—Body fusiform, brownish (in alcohol); antennae fulvous, at the apices infuscated, less than one half the length of the body, the 3rd joint wanting sensoria, anterhinal as long as the post-rhinal; abdomen broadest in the middle; cornicles longer than those of the winged viviparous female, in the middle dilated and curved outwardly; cauda longer than broad, lower genital plate very long, conical; legs pale fulvous.

Length of body 2. mm. (including long lower genital plate); antennae 0.9 mm.; cauda 0.1 mm.; lower genital plate 0.2 mm.

Hab.—Shikoku (Iyo).

F. P.—*Salix babylonica*.

Nom. Jap.—*Yanagi-onaga-abura*.

14. **Yezaphis** n. g.

Allied *Myzus* Pass. from which it differs in the following characters:

Antennae 5-jointed, the first 2 joints very broad, the following joints very slender distinctly shorter than the body, frontal tubercles short, the 1st joint on the inner side gibbous, twice as broad as the 2nd, the 3rd double the length of the 4th, the 5th the longest; pronotal tubercles very small, corni-

cles cylindrical, short and very slender; cauda shorter than the cornicles, but broader; legs slender and shorter, the hind tibiae nearly one third longer than the middle ones.

Type—*Yezaphis sasicola* MATS.

55. *Yezaphis sasicola* n. sp.

Apterous viviparous female—Body broad-fusiform, black; antennae yellow, the basal 2 joints and frontal tubercles black, anterhinarial nearly $4\frac{1}{2}$ times as long as the postrhinarial; pronotal tubercles yellowish, longer than broad; abdomen broadest in the middle, with a few short hairs; cornicles at the base somewhat constricted, with some curved hairs; legs black, tibiae and tarsi yellow.

Length of body 1.5 mm.; antennae 1.2 mm.; cornicles 0.1 mm.

Hab.—Hokkaido (Sapporo).

F. P.—*Sasa paniculata*.

Nom. Jap.—*Sasa higeboso-abura*.

15. *Yamataphis* n. gen.

Allied to *Toxoptera* KOCH., from which it differs as follows:

Antennae: 5-jointed, much shorter than the body, the 3d joints long, on the whole surface with some roundish sensoria, the 4th very short, as long as the first 2 joints taken together, the 5th the longest, anterhinarial very long, nearly 9 times as long as the postrhinarial.

Cornicles: shorter, near the apices somewhat dilated, the mouth funnel-shaped.

Cauda: small, somewhat conical.

Wings: stigma nearly 8 times as long as broad as in the middle, both ends being sharply pointed stigmatic nervure originating nearly at $3/4$ of its whole length near the apex, hind wings with 3 hooklets on the costa.

Genotype—*Yamataphis oryzae* MATS.

56. *Yamataphis oryzae* n. sp. (Pl. XVI, f. 6, a, b, c.)

Winged viviparous female—Body fuscous, with a purple shade, abdomen somewhat paler; antennae fuscous, with a few hairs, the 3rd joint at the base yellowish, somewhat shorter than the anterhinarial, with about 19 roundish soneria all over the surface, nearly in two rows, the 4th with about 4, the rhinaria of the 5th not larger than the sensoria of the other joints, with a few minor ones about it, anterhinarial imbricated, about 9 times as long as the postrhinarial; rostrum short, scarcely reaching beyond the 2nd coxae; wings hyaline, veins pale fulvous, stigma pale grayish, at the hind margin somewhat infuscated, media at the base obsolete, rarely twice branched; hind wings with 2 narrow obliques, both reaching to the cubitus; abdomen oval, cornicles more than twice the length of the tarsi, somewhat curved, near the apices dilated, near the base imbricated, mouth large, funnel-shaped, somewhat infuscated; cauda somewhat longer than broad, conical, at the apex rounded; legs moderately long, tibiae nearly as broad as the antennae, fulvous, femora, except the bases, tibiae at the apices and tarsi, fuscous.

Length of body 1.6 mm.; exp. tegm. 5.4 mm.; antennae 1.1 mm.; cornicles 0.25 mm.

Apterous viviparous female—Nearly allied to the winged viviparous female, but differs from it in the following points:

Antennae shorter, nearly 1/2 the length of the body, with a few bristly hairs, anterhinarial nearly as long as the other joints combined, the 3rd and 4th wanting sensoria; frontal margin with a few bristly hairs; abdomen on the lateral margins with some tubercles; cornicles at the base broadest; cauda somewhat longer and narrower; legs long pubescent, fulvous; femora somewhat darker in color.

Length of body 1.5 mm.; antennae 0.8; cornicles 0.25 mm.

Larvae fulvous, antennae shorter than 1/2 the length of the body, rostrum reaching somewhat to the 3rd coxae, cauda very small, the rest as those of the apterous viviparous female.

Hab.—Hokkaido (Sapporo).

F. P.—*Oryza sativa* (attacking roots).

Nom. Jap.—*Ine-abura*.

This species may differ from *Y. rufiabdominalis* SASAKI in having smaller size, fuscous abdomen, wanting any marking, etc.

57. *Toxoptera piricola* n. sp. (Pl. XVII, f. 4, a, b.)

Winged viviparous female—Body oblong, yellowish green; antennae fuscous, at the base paler, subequal to the body, frontal tubercles short but distinct, on the inner side with a small tubercle, the 3rd much shorter than the 6th, the 4th subequal to the 5th, anterhinal very slender, nearly 8 times as long as the postrhinal; wings hyaline, veins pale ochraceous, stigma grayish, cubitus obsolete at the base, with one furcal which branching nearly in the middle; abdomen not constricted at the base, cornicles long, cylindrical, cauda moderately long, at the apex broadly conical, with the cornicles concolorous with the body; legs greenish yellow, tibiae at the apices and tarsi, as well as the posterior femora at the apices, somewhat infuscated (in alcohol).

Length of body 1.6 mm.; exp. tegm. 6 mm.; antennae 1.6 mm.; cornicles 0.25 mm.

Apterous viviparous female—Body yellowish brown, oblong; antennae distinctly shorter than the body, frontal tubercles nearly as in *Myzus*, the 3rd joint much shorter than the 6th, the 4th and 5th subequal, anterhinal nearly as 8 times as long as the postrhinal; abdomen short oval, cornicles long, surpassing beyond the cauda, at the base somewhat dilated; cauda broader than the cornicles, broadly conical; legs robust, the hind pair much longer than the anterior 2 pairs; rostrum reaches beyond the 2nd coxae.

Length of body 1.6 mm.; antennae 1.3 mm.; cornicles 0.25 mm.

Hab.—Shikoku (Iyo).

F. P.—*Pirus sinensis*; collected by Mr. SHIBGERI ARAKAWA.

Nom. Jap.—*Nashi-abura*.



INDEX.

A.

Abura 363, 407
Acanthocallis 353, 367, 368
Aphidinae 356
Aphis 356, 357, 358, 384, 385, 386
Arakawana 354, 375
Arimakia 363, 405, 406

C.

Callipterini 353
Ceylonia 362
Chaitophori 354
Chaitophorus 354, 376
Chelymorpha 354

D.

Drepanosiphum 366
Dryaphis 355
Dryobius 355

H.

Hannabura 354, 377
Hyalopteris 358
Hyalopterus 358, 391

L.

Lachninae 355
Lachnus 355, 379, 380

M.

Macrosiphoniella 360, 398
Macrosiphum 359, 360, 361, 397, 399
400, 401
Melanoxanthus 359, 409
Myzocallis 353, 354 371, 372, 374

Myzus 362, 402, 403, 404

N.

Nectatophora 359
Nippocallis 353, 365
Nippolachnus 355, 382, 383
Nipposiphum 359, 401

P.

Phorodon 362, 405
Phyllophora 354
Phyllophorus 354
Pterochlorus 355, 356

R.

Rhopalosiphum 362

S.

Siphocoryne 359, 408
Siphonophora 359

T.

Takecallis 354, 373
Todolachnus 355, 378, 381
Toxoptera 366, 414
Trichosiphoni 364
Trichosiphum 364

Y.

Yamataphis 363, 411
Yamatocallis 355, 366, 367
Yezabura 359, 392
Yezaphis 363, 411
Yezocallis 353, 369, 370

Explanation of Plate XVI.

Fig. 1. *Takecallis bambusae* MATS. (n. sp.) p. 373
1 a, Nymph.
1 b, Antenna of winged viviparous ♀.
1 c, Empodial hair.
1 d, Cornicle.

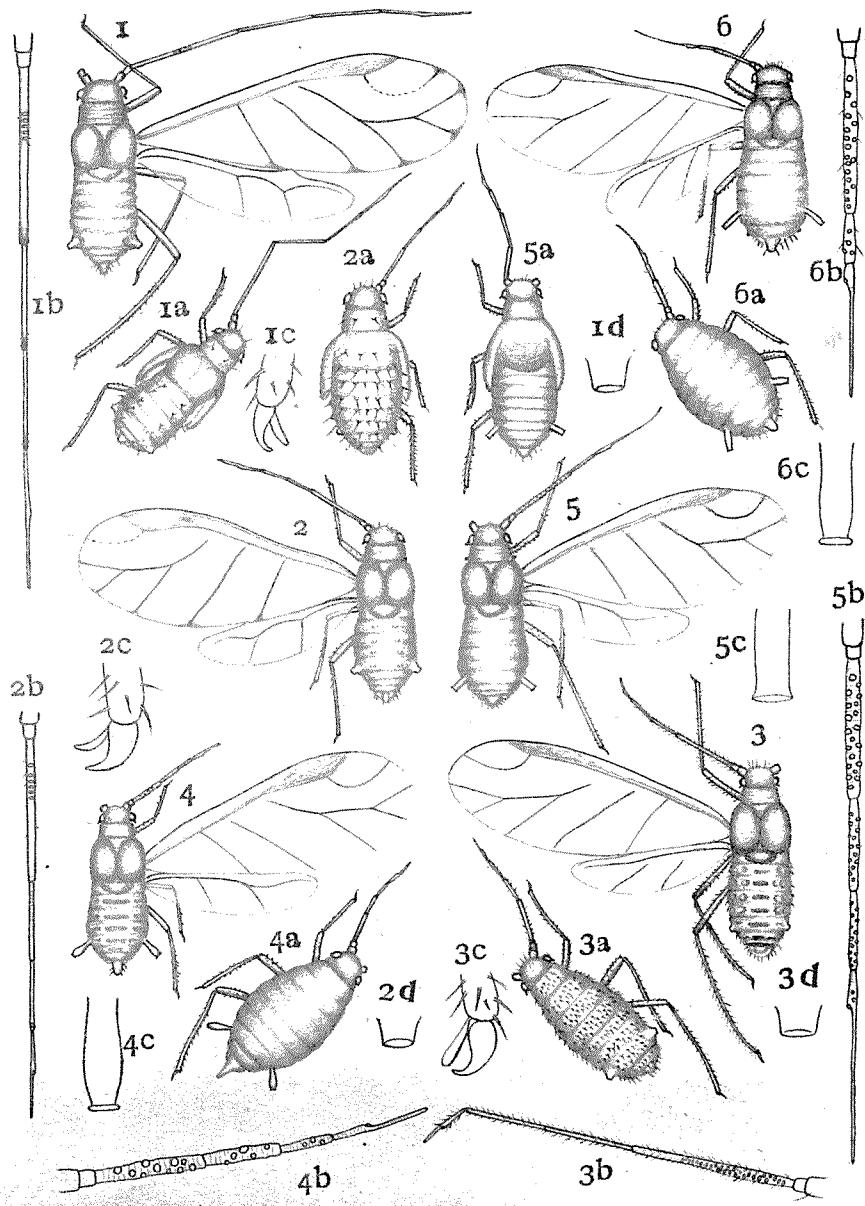
Fig. 2. *Myzocallis sasae* MATS. (n. sp.) p. 372
2 a, Nymph.
2 b, Antenna of winged viviparous ♀.
2 c, Empodial hair.
2 d, Cornicle.

Fig. 3. *Yezocallis kabae* MATS. (n. sp.) p. 360
3 a, Wingless viviparous ♀.
3 b, Antenna of winged viviparous ♀.
3 c, Empodial hair.
3 d, Cornicle.

Fig. 4. *Nipposiphum salicicola* MATS. (n. sp.) p. 410
4 a, Wingless viviparous ♀.
4 b, Antenna of winged viviparous ♀.
4 c, Cornicle.

Fig. 5. *Yezabura sasae* MATS. (n. sp.) p. 392
5 a, Nymph.
5 b, Antenna of winged viviparous ♀.
5 c, Cornicle.

Fig. 6. *Yamataphis oryzae* MATS. (n. sp.) p. 412
6 a, Wingless viviparous ♀.
6 b, Antenna of winged viviparous ♀.
6 c, Cornicle.



Explanation of Plate XVII.

Fig. 1. *Acanthocallis quercicola* MATS. (n. sp.) p. 368
1 a, Wingless viviparous ♀.
1 b, Antenna of winged viviparous ♀.
1 c, Empodial hair.
1 d, Cornicle.

Fig. 2. *Hannabura alnicola* MATS. (n. sp.) p. 377
2 a, Antenna of winged viviparous ♀.
2 b, Empodial hair.
2 c, Cornicle.
2 d, Capitate hair.

Fig. 3. *Arimakia araliae* MATS. (n. sp.) p. 405
3 a, Wingless viviparous ♀.
3 b, Cornicle of wingless viviparous ♀.
3 c, Antenna of winged viviparous ♀.

Fig. 4. *Toxoptera piricola* MATS. (n. sp.) p. 414
4 a, Antenna of winged viviparous ♀.
4 b, Cornicle.

Fig. 5. *Arakawana stigmata* MATS. (n. sp.) p. 375
5 a, Antenna of winged viviparous ♀.
5 b, Cornicle.

Fig. 6. *Nippolachnus piri* MATS. (n. sp.) p. 382
6 a, Wingless ♀.
6 b, Antenna of winged viviparous ♀.
6 c, Cornicle.

Fig. 7. *Todolachnus abietis* MATS. (n. sp.) p. 381
7 a, Nymph.
7 b, Antenna of winged viviparous ♀.
7 c. Cornicle.

Fig. 8. *Nippocallis kuricola* MATS. (n. sp.) p. 365
8 a, Nymph.
8 b, Antenna of winged viviparous ♀.
8 c, Cornicle.

